

**MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION,  
MINISTRY OF SCIENCE, HIGHER EDUCATION AND INNOVATION OF THE KYRGYZ  
REPUBLIC**

Kyrgyz-Russian Slavic University named after the First President of  
the Russian Federation B. N. Yeltsin



**PROFESSIONAL CYCLE**  
**Neurology, medical genetics, neurosurgery**

Assigned to the Department of Neurology, Neurosurgery and Medical Genetics  
Curriculum 560001-KR "Medical business" (for international students)

Mode of Study Intramural  
Standard period of study 5 years  
Total labor intensity 7ZET

Hours according to the curriculum 210  
Types of control in semesters:  
Including:  
classroom lessons 128,8  
individual work 51,7  
exam 29,5

Types of control in semesters:  
exams 6  
credits 5

**Distribution of discipline hours by semester**

Term (<Course>.<Semester on the course>)	5 (3.1)		6 (3.2)		Total	
	UP	IP	UP	IP	UP	IP
Weeks	18		18			
Type of classes	UP	IP	UP	IP	UP	IP
Lectures	32	32	16	16	48	48
Practical applications	48	48	32	32	80	80
Contact work during the theoretical training period	0,3	0,3			0,3	0,3
Contact work during the exam session			0,5	0,5	0,5	0,5
Including int.	4	4	3	3	7	7
Total aud. Contact work Yourself.	80	80	48	48	128	128
work Hours per control Total	80,3	80,3	48,5	48,5	128,8	128,8
	39,7	39,7	12	12	51,7	51,7
			29,5	29,5	29,5	29,5
	120	120	90	90	210	210

The program was compiled by:

Candidate of Medical Sciences, Associate Professor Musabekova T.O.



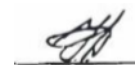
Reviewer(s):

Doctor of Medical Sciences, Professor Deputy Director for Science of the Kyrgyz Research Institute of Balneology and Restorative Treatment Kulov

Bolot Beishenalievich



Candidate of Medical Science, Associate Professor of the Department of Therapy No.2 Kyrgyz-Russian Slavic University  
Dzhaylobaeva Klara Asanovna



The course Outline

Neurology, Medical Genetics, Neurosurgery

developed in accordance with :

The State educational standard of higher professional education of the Kyrgyz Republic in the specialty 560001 - Medical care, qualification – specialist (doctor) (specialty level) (order of the Ministry of Education and Science of the Kyrgyz Republic No. 1357/1 of 30.07.2021)

Compiled on the basis of the curriculum:

560001 - Medical care (for foreign students)

approved by the Academic Council of the university on 28.02.2023 protocol No. 2.

Protocol from \_20\_ \_02\_ 2023 No . \_7\_

Duration of the program: 2023-2028 academic year

Head of the Department, Candidate of Medical Sciences, Associate Professor Musabekova T.O.



#### **Approval of the RPD for execution in the next academic year**

Chairman of the UMS

\_\_\_\_\_ 2024

The work program was revised, discussed and approved for execution in the 2024-2025 academic year at a meeting of the department Neurology, Neurosurgery and Medical genetics

Protocol from 26.08. 2024 No. 1

Head of the Department, Candidate of Medical Sciences, Associate Professor Musabekova T.O.



Chairman of the UMS

\_\_\_\_\_ 2025.

The work program was revised, discussed and approved for execution in the 2025-2026 academic year at a meeting of the department Neurology, Neurosurgery and Medical genetics

Protocol from 29.08. 2025 No. 1

Head of the Department, Candidate of Medical Sciences, Associate Professor Musabekova T.O.



Chairman of the UMS

\_\_\_\_\_ 2026.

The work program was revised, discussed and approved for execution in the 2026-2027 academic year at a meeting of the department Neurology, Neurosurgery and Medical genetics

Protocol from \_\_ \_\_\_\_\_ 2026 G.No. \_\_

Head of the Department, Candidate of Medical Sciences, Associate Professor Musabekova T.O.

Chairman of the UMS

\_\_ \_\_\_\_\_ 2027 .

The work program was revised, discussed and approved for  
execution in the 2027-2028 academic year at a meeting of the department  
Neurology, Neurosurgery and Medical genetics

Protocol from \_\_ \_\_\_\_\_ 2027 . No. \_\_

Head of the Department, Candidate of Medical Sciences, Associate Professor Musabekova T.O.

## 1. COURSE OUTLINE OBJECTIVES

1.1	Teaching students in the neurological examination and detection of symptoms of nervous system disorders, the ability to combine symptoms into syndromes and find out topical diagnosis;
1.2	Students' obtaining knowledge about the etiology, pathogenesis, clinic, diagnosis, treatment, prevention of main diseases of the nervous system;
1.3	Formation in students of clinical neurological reasoning, the ability to diagnose the most common neurological diseases independently, to treat urgent neurological conditions and prevent the diseases of the nervous system;
1.4	Creation of a certain stock of theoretical knowledge and practical skills for students in neurology, which are necessary for the doctor in his work with patients with impaired functions of the nervous system.

## 2. PLACE OF THE COURSE IN THE EDUCATIONAL PROGRAM

EducationalProgramUnits:	B1.B
<b>2.1</b>	<b>Students' Preliminary Training Requirements:</b>
2.1.1	Pathological Anatomy
2.1.2	General Surgery
2.1.3	Propaedeutics of Mental Disorders
2.1.4	Epidemiology
2.1.5	Propaedeutics of Internal Diseases
2.1.6	Pharmacology
2.1.7	Biochemistry
2.1.8	Microbiology, Virology
2.1.9	Normal Physiology
2.1.10	Histology, embryology, Cytology
2.1.11	Biology
2.1.12	Latin language
2.1.13	Pathophysiology, Clinical Pathophysiology
<b>2.2</b>	<b>Course Units and Practical Sessions imposing the prior Proficiency</b>
2.2.1	Obstetrics and Gynecology
2.2.2	Occupational Diseases
2.2.3	Psychiatry, Medical Psychology
2.2.4	Urology
2.2.5	Endocrinology
2.2.6	Hospital Therapy
2.2.7	Hospital Surgery
2.2.8	Infectious Diseases
2.2.9	Clinical Pharmacology
2.2.10	Clinical Biochemistry
2.2.11	Otorhinolaryngology
2.2.12	Ophthalmology
2.2.13	Pediatrics
2.2.14	Traumatology, Orthopedics
2.2.15	Gerontology
2.2.16	Oncology, Radiation Therapy
2.2.17	Polyclinic Therapy

2.2.18	Anesthesiology, Intensive care
2.2.19	Medical Rehabilitation
2.2.20	Forensic Medicine

### 3. STUDENTS' COMPETENCIES RESULTING FROM THE COURSE UNIT (MODULE)

#### Competency-4: readiness to conduct pathophysiological analysis of clinical syndromes, ground pathogenetic methods (principles) of diagnostic, treatment, rehabilitation and prevention of the population with due regard for age and gender

##### Knowledge:

Level 1	<ol style="list-style-type: none"> <li>1. Collection of complaints and anamnesis from patients with neurological diseases.</li> <li>2. Method of neurological examination.</li> <li>3. The main clinical symptoms and syndromes of frequent neurological diseases.</li> <li>4. Additional methods for diagnosis of commonly occurring neurological diseases.</li> </ol>
Level 2	<ol style="list-style-type: none"> <li>1. Risk factors for neurological diseases in the adult population.</li> <li>2. Etiopathogenesis, clinical picture and diagnosis of frequent neurological diseases.</li> </ol>
Level 3	<ol style="list-style-type: none"> <li>1. Topical diagnosis of lesions of the nervous system.</li> <li>2. Indications and contraindications for additional research methods.</li> </ol>

##### Skills:

Level 1	<ol style="list-style-type: none"> <li>1. To collect complaints, history of disease of neurological patients.</li> <li>2. To make a model of bloodline for families with hereditary diseases of the nervous system.</li> <li>3. To examine neurological status.</li> </ol>
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Level 2	<ol style="list-style-type: none"> <li>1. To determine neurological syndromes in neurological diseases.</li> <li>2. To determine indications and contraindications for the choice of additional methods of research.</li> </ol>
Level 3	<ol style="list-style-type: none"> <li>1. To determine a topical diagnosis.</li> <li>2. To conduct a comprehensive medical examination to confirm the neurological diagnosis.</li> </ol>

##### Expertise:

Level 1	<ol style="list-style-type: none"> <li>1. Skills of collecting patient complaints and data of his medical history.</li> <li>2. Medical ethics and deontology.</li> <li>3. Method of neurological examination.</li> <li>4. Skills to appoint necessary laboratory and instrumental examination methods for the diagnosis of common neurological diseases.</li> </ol>
Level 2	<ol style="list-style-type: none"> <li>1. Skills of formulation of topical diagnosis.</li> <li>2. Skills of interpretation of the main laboratory and x-ray examination methods.</li> </ol>
Level 3	<ol style="list-style-type: none"> <li>1. Skills of registration of the history of disease of the neurological patient.</li> <li>2. Skills of justification of the preliminary neurological diagnosis.</li> </ol>

#### Competency-16: readiness to use algorithms of formulation diagnosis (basic, secondary, sequel) with due regard for ICD, perform basic diagnostic measures to identify urgent and life-threatening conditions

##### Knowledge:

Level 1	Neurological symptoms, syndromes of diseases, basic nosological forms in accordance with ICD.
Level 2	The algorithm of formulation of topical and clinical diagnosis.
Level 3	Additional research methods in diseases of the nervous system.

##### Skills:

Level 1	To distinguish the neurologic symptoms and syndromes in the main neurological diseases.
Level 2	To reveal the nosological form of the main neurological diseases.
Level 3	To justify the main neurological diseases.

##### Expertise:

Level 1	Skills of formation of neurological syndromes, nosological forms in accordance with ICD.
Level 2	Skills of differential diagnosis of main neurological diseases.

Level 3	Skills of interpretation of results of additional methods of examination at the main neurological diseases.
<b>Competency-19: readiness to provide first aid in case of emergency and life-threatening conditions, to send patients for hospitalization (in a planned and emergency care</b>	
<b>Knowledge:</b>	
Level 1	Types of emergency care in neurology.
Level 2	Principles of assistance at emergencies in neurology.
Level 3	Peculiarities of treatment of emergency conditions in neurology.
<b>Skills:</b>	
Level 1	To determine the tactics of emergency care in neurology.
Level 2	To use the algorithm of emergency measures in neurology.
Level 3	To determine the treatment of patients with urgent conditions in neurology.
<b>Expertise:</b>	
Level 1	Principles of emergency care in neurology.
Level 2	Algorithm of emergency care in neurology in different age groups.
Level 3	Skills of emergency care for patients with urgent neurological pathology.

### Final Students' Competences

<b>3.1</b>	<b>Knowledge:</b>
3.1.1	Collection of complaints and anamnesis from patients with neurological diseases.
3.1.2	Method of neurological examination.
3.1.3	The main clinical symptoms and syndromes of frequent neurological diseases.
3.1.4	Additional methods for diagnosis of commonly occurring neurological diseases.
3.1.5	Risk factors for neurological diseases in the adult population.
3.1.6	Etiopathogenesis, clinical picture and diagnosis of frequent neurological diseases.
3.1.7	Topical diagnosis of lesions of the nervous system.
3.1.8	Indications and contraindications for additional research methods.
3.1.9	Neurological symptoms, syndromes of diseases, basic nosological forms in accordance with ICD.
3.1.10	The algorithm of formulation of topical and clinical diagnosis.
3.1.11	Additional research methods in diseases of the nervous system.
3.1.12	Tactics of management of neurological patients with the main diseases.
3.1.13	Features of treatment of the main neurological diseases.
3.1.14	Treatment, prevention and rehabilitation of neurological patients, assistance in emergency situations.
3.1.15	Types of emergency care in neurology.
3.1.16	Principles of assistance at emergencies in neurology.
3.1.17	Peculiarities of treatment of emergency conditions in neurology.
3.1.18	Types of prevention of the main neurological diseases.
3.1.19	Methods and techniques for the prevention of the main neurological diseases.
3.1.20	Complexes of preventive measures for major neurological diseases.
<b>3.2</b>	<b>Skills:</b>
3.2.1	To collect complaints, history of disease of neurological patients.
3.2.2	To make a model of bloodline for families with hereditary diseases of the nervous system.
3.2.3	To examine neurological status.
3.2.4	To determine neurological syndromes in neurological diseases.
3.2.5	To determine indications and contraindications for the choice of additional methods of research.
3.2.6	To determine a topical diagnosis.
3.2.7	To conduct a comprehensive medical examination to confirm the neurological diagnosis.
3.2.8	To distinguish the neurologic symptoms and syndromes in the main neurological diseases.

3.2.9	To reveal the nosological form of the main neurological diseases.
3.2.10	To justify the main neurological diseases.
3.2.11	To substantiate the principles of treatment of patients with the main neurological diseases.
3.2.12	To determine the main types and methods of treatment of patients with neurological pathology.
3.2.13	To define preventive actions and rehabilitation at neurological diseases.
3.2.14	To determine the tactics of emergency care in neurology.
3.2.15	To use the algorithm of emergency measures in neurology.
3.2.16	To determine the treatment of patients with urgent conditions in neurology.
3.2.17	To identify risk factors for major neurological diseases.
3.2.18	To determine the necessary preventive measures for major neurological diseases.
<b>3.3 Expertise:</b>	
3.3.1	Skills of collecting patient complaints and data of his medical history.
3.3.2	Medical ethics and deontology.
3.3.3	Method of neurological examination.
3.3.4	Skills to appoint necessary laboratory and instrumental examination methods for the diagnosis of common neurological diseases.
3.3.5	Skills of formulation of topical diagnosis.
3.3.6	Skills of interpretation of the main laboratory and x-ray examination methods.
3.3.7	Skills of registration of the history of disease of the neurological patient.
3.3.8	Skills of justification of the preliminary neurological diagnosis.
3.3.9	Skills of formation of neurological syndromes, nosological forms in accordance with ICD.
3.3.10	Skills of differential diagnosis of main neurological diseases.
3.3.11	Skills of interpretation of results of additional methods of examination at the main neurological diseases.
3.3.12	Principles of treatment of the main neurological diseases.
3.3.13	Principles of treatment, prevention and rehabilitation of neurological patients.
3.3.14	Skills to assist patients with neurological pathology of different age groups.
3.3.15	Principles of emergency care in neurology.
3.3.16	Algorithm of emergency care in neurology in different age groups.
3.3.17	Skills of emergency care for patients with urgent neurological pathology.

#### 4. STRUCTURE AND CONTENT DISCIPLINES (MODULE)

Code classes	Name sections And those /view classes/	Semester / Well	Hours	Competent-tions	Literature	Inte ract.	Pr. prep.	Note
	<b>Chapter 1. General neurology</b>							
1.1	The subject, methods, and structure of neuropathology. Some issues of the structural and functional organization of the nervous system. /Lecture/	5	2	PC- 5	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			
1.2	The pyramidal system and its pathology: normal and pathological reflexes; central and peripheral paralysis. Topical diagnostics of movement disorders . Extraparalysidal system, cerebellum, motor coordination. Syndromes defeats. /Pr/	5	6	PC- 5	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26	1		Interactive teaching methods . Training with elements of research and development.

1.3	Mastering the Methodology of Motor Sphere Research. Preparing for an Interactive Lesson. /Wed/	5	9	PC- 5	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			Summary, frontal survey, test, essay
1.4	Head pain. /Lek/	5	2	PC-5 PC -16	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.5 L3.11 L3.12 E1 E6 E11 E14 E15 E16 E18 E19 E20 E24 E25 E26			
1.5	Main types of sensitivity and types of sensory disorders . Topical diagnostics of sensory disorders. Pain points, meningeal signs and symptoms tension. /Pr/	5	4	PC- 5	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			
1.6	Mastering the methodology for studying the sensitive sphere. /Wed/	5	4	PC- 5	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			Summary, frontal survey, test
1.7	Methodology for examination of the first to twelfth pairs of cranial nerves. Damage syndromes. Alternating syndromes. /Pr/	5	8	PC- 5	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26	1		Interactive teaching methods . Training with elements of research and development.
1.8	Mastering the technique of studying cranial nerves. Preparation To interactive lesson. /Wed/	5	9	PC- 5	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			Summary, frontal survey, test
1.9	The autonomic nervous system and modern concepts of its functioning. Damage syndromes: vegetative dystonia, hypothalamic syndrome. /Lecture/	5	2	PC- 5	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			

1.10	Vegetative dystonia syndrome. Hypothalamic syndrome. Peripheral autonomic failure. Pelvic disorders. Examination methods. Higher brain functions. Syndromes involving damage to individual lobes of the brain. /Pr/	5	4	PC- 5	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26	1		Interactive teaching methods . Teaching with elements of research work
1.11	Mastering the methodology for studying the autonomic nervous system and higher nervous activity. /Wed/	5	4	PC- 5	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E2 E3 E5 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			Summary, frontal survey, test
	<b>Section 2. Special neurology. Cerebrovascular, neuroinfectious diseases.</b>							
2.1	Pre-stroke forms of cerebrovascular diseases (cerebrovascular insufficiency, transient ischemic attacks). Cerebral strokes, modern concepts of pathogenesis, clinical forms of acute cerebrovascular accidents. /Lecture/	5	4	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.2 L3.3 L3.4 L3.6L3.11 L3.12 E1 E4 E6 E8 E10 E11 E14 E15 E16 E18 E19 E20 E24 E25 E26			
2.2	Acute and chronic cerebrovascular accidents. Transient ischemic attacks : cerebral Hypertensive crises, transient ischemic attacks. Cerebral strokes. Dyscirculatory encephalopathy. Vascular diseases of the spinal cord brain. /Pr/	5	6	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.2 L3.3 L3.4 L3.6L3.11 L3.12 E1 E6 E8 E11 E14 E15 E16 E18 E19 E20 E24 E25 E26	1		Interactive teaching methods . Training with elements of research and development.
2.3	Modern approaches to treatment And stroke prevention . Preparation To interactive lesson /Wed/	5	10	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.4 L3.6 L3.11 L3.12 E1 E6 E8 E10 E11 E15 E16 E18 E19 E20 E24 E25 E26			Summary, frontal survey, test, essay, report, presentation
2.4	Meningitis – serous and purulent, current clinical presentation, diagnosis, and treatment strategies. Cerebrospinal fluid (CSF) and its diagnostic value. Encephalitis (tick-borne, epidemic, post-vaccination, herpes). /Lek/	5	2	PC-5 PC-16 PC -18	L1.1 L1.2L2.1 L2.2L3.3 L3.6 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E21 E22 E23 E24 E25 E26			

2.5	Meningitis (serous and purulent). Myelitis. Poliomyelitis. Encephalitis (tick-borne, epidemic, post-vaccination). Arachnoiditis. /Pr/	5	4	PC-5 PC-16 PC -18	L1.1 L1.2L2.1 L2.2L3.3 L3.6 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E21 E22 E23 E24 E25 E26			
2.6	Peculiarities treatment of serous and purulent meningitis. /Wed/	5	4	PC-5 PC-16 PC -18	L1.1 L1.2L2.1 L2.2L3.3 L3.6 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E21 E22 E23 E24 E25 E26			Summary, frontal survey, test
2.7	Neurosphilis, neuroreumatism, neurobrucellosis, neuroAIDS. /Lek/	5	2	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.6 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E21 E22 E23 E24 E25 E26			
2.8	Neuroreumatism, neurobrucellosis, neuro-AIDS, neurosphilis /Pr/	5	2	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.6 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E21 E22 E23 E24 E25 E26			
2.9	Principles of treatment of neuroinfectious diseases /Wed/	5	4	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.6 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E21 E22 E23 E24 E25 E26			Summary, frontal survey, test

2.10	Additional examination methods, testimony and contraindications for the procedure: 1) lumbar puncture and liquor- dynamic samples; 2) fundus; 3) radiological methods: craniogram, spondylogram, myelography, pneumoencephalography, ventriculography; 4) neuroimaging: CT, MRI, angiography; 5) ultrasound methods: echoencephalogram, neurosonography, ultrasound vessels of the neck and head - duplex examination, transcranial Doppler sonography, ultrasound of peripheral nerves; 6) electrophysiological studies: electroencephalogram, electroneuromyography. /Pr/	5	2	PC- 5	L1.1 L1.2L2.1 L2.2L3.3 L3.6L3.11 L3.12 E1 E6 E7 E9 E10 E11 E12 E13 E15 E16 E18 E19 E20 E24 E25 E26			
2.11	Additional research methods /Wed/	5	6.7	PC- 5	L1.1 L1.2L2.1 L2.2L3.3 L3.6L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			Notes, frontal survey, test, report, presentation
	<b>Section 3. Specialized Neurology. Myasthenia, demyelinating diseases of the nervous system.</b>							
3.1	Myasthenia gravis, myasthenic and cholinergic crises. /Lek/	5	2	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.1 L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			
3.2	Demyelinating diseases of the nervous system (multiple sclerosis, leukoencephalitis), modern diagnostic criteria. /Lecture/	5	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			
3.3	Myasthenia gravis, myasthenic and cholinergic crises. Demyelinating diseases (multiple sclerosis, leukoencephalitis). /Pr/	5	4	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.1 L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			

3.4	Principles of treatment of myasthenia gravis, demyelinating diseases of the nervous system systems. /Wed/	5	5	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			Notes, frontal survey, test, report, presentation
3.5	Epilepsy, classification. Convulsive syndromes. /Lek/	5	2	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.10L3.11 L3.12 E1 E6 E7 E10 E11 E15 E16 E18 E19 E20 E24 E25 E26			
3.6	General principles of genetic diagnostics. Problems of genetic heterogeneity and classification hereditary diseases of the nervous system. Medical and genetic Consulting in neurology. /Lecture/	5	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2L3.11 L3.12 E6 E18 E19 E20 E24 E25 E26			
3.7	Malformations of the nervous system (microcephaly, craniosynostosis, syringomyelia, spina bifida, porencephaly), diagnosis, treatment principles. /Lek/	5	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2L3.11 L3.12 E6 E18 E19 E20 E24 E25 E26			
	<b>Section 4. Specialized Neurology. Diseases of the Peripheral Nervous System.</b>							
4.1	Polyneuropathy, especially diabetic, alcoholic, lead, diphtheria, and botulism. Acute Guillain's polyneuropathy Bare. /Pr/	5	4	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			
4.2	Polyneuropathy, especially diabetic, alcoholic, lead, diphtheria, and botulism. Acute Guillain's polyneuropathy Bare. /Wed/	5	4	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			Summary, frontal survey, test

4.3	Peripheral nervous system diseases. Neuropathies, neuralgias, polyradiculoneuropathy, and modern treatment methods. Neurological manifestations of degenerative spinal diseases. /Lecture/	5	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			
4.4	Diseases of the peripheral nervous system: tunnel syndromes, neuralgia, neuropathies of the facial, median, radial, ulnar, sciatic, tibial and peroneal nerves. Neurological manifestations of degenerative diseases of the spine (irritative-reflex, myofascial, Radicular syndromes). Polyneuropathy, especially diabetic, alcoholic, and lead-induced. Polyneuropathy associated with botulism and diphtheria. Acute polyneuropathy . GuillainBare. /Pr/	5	4	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			
4.5	Peripheral diseases nervous system /Wed/	5	4	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			Summary, frontal survey, test
4.6	Neurological manifestations of degenerative diseases of the spine. /Lek/	5	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			
4.7	Chromosomal diseases (Down's disease, Shereshevsky's disease -Turner, Klinefelter). Diagnostics. /Lek/	5	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2L3.11 L3.12 E6 E18 E19 E20 E24 E25 E26			
4.8	Hereditary diseases with predominant damage to the pyramidal and cerebellar systems (familial amyotrophic lateral sclerosis, Strumpell disease, Werdnig-Hoffmann disease, Charcot neural amyotrophy -Marie, Friedreich's disease), diagnosis, treatment tactics. /Lecture/	5	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2L3.11 L3.12 E6 E18 E19 E20 E24 E25 E26			

4.9	credit /KrTO/	5	0.3	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			
	<b>Section 5. Specialized neurology. Epilepsy. Perinatal encephalopathy, cerebral palsy.</b>							
5.1	Curation sick. /Pr/	6	2	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2 L2.4L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			
5.2	Curation sick. /Wed/	6	2	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			patient care
5.3	Epilepsy. Status epilepticus. Convulsions in children. Treatment strategies. Eclampsia. Neuroses, types, treatment principles. /Pr/	6	6	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.7 L3.10 L3.11 L3.12 E1 E6 E7 E10 E11 E15 E16 E18 E19 E20 E24 E25 E26	1		Interactive teaching methods . Training with elements of research and development.
5.4	Epilepsy: Diagnostic Principles. Video - EEG monitoring /Wed/	6	4	PC-5 PC -16	L1.1 L1.2L2.1 L2.2L3.3 L3.10L3.11 L3.12 E1 E6 E7 E10 E11 E15 E16 E18 E19 E20 E24 E25 E26			Summary, frontal survey, test, essay, report, presentation
5.5	Perinatal encephalopathy. Childhood cerebral paralysis. /Pr/	6	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E7 E10 E11 E15 E16 E18 E19 E20 E21 E23 E24 E25 E26			

5.6	Perinatal encephalopathy. Childhood cerebral paralysis. /Wed/	6	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E21 E23 E24 E25 E26			Summary, frontal survey, test, essay
	<b>Section 6. Clinical genetics.</b>							
6.1	Malformations of the nervous system (microcephaly, craniosynostosis, syringomyelia, spina bifida, porencephaly), diagnosis, treatment principles. Chromosomal diseases (Down's disease, Shereshevsky's disease -Turner, Klinefelter). Diagnostics. /Lek/	6	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26			
6.2	Clinical-genealogical method. - Collect anamnesis for a given proband, compile a pedigree, number each individual according to Vertically and horizontally, highlight the individual characteristics of each individual in the archive, enter symbols, identify the type of disease inheritance, and write a conclusion. Written work on pedigree (with defense). Cytogenetic method. – Classification chromosomes into metacentric, submetacentric and acrocentric. Chromosomes groups A, IN, C, D, E, F, G and sexual. Prenatal diagnostic methods, non-invasive and invasive methods (ultrasound, determination of hCG, AFP, chorionic villus sampling, amniocentesis, cordocentesis, skin and muscle biopsy).  Malformations of the nervous system (microcephaly, craniosynostosis, syringomyelia, spina bifida, porencephaly). Analysis sick. /Pr/	6	4	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26	1		Interactive teaching methods . Training with elements of research and development.
6.3	Clinical and genealogical research methods, chromosomal diseases, developmental defects. /Wed/	6	2	PC-5 PC -16	L1.1 L1.2L2.1 L2.2 L2.3L3.11 E6 E17 E18 E19 E20 E24 E25 E26			Summary, frontal survey, test

6.4	Hereditary diseases with predominant damage to the pyramidal and cerebellar systems (familial amyotrophic lateral sclerosis, Strumpell disease, Werdnig-Hoffmann disease, Charcot neural amyotrophy -Marie, Friedreich's disease), diagnosis, treatment tactics. Hereditary diseases with predominant involvement extrapyramidal system: Huntington's chorea, torsion dystonia, hepatocerebral dystrophy (Wilson-Konovalov disease), Parkinsonism, diagnosis, treatment. /Lecture/	6	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26			
6.5	Hereditary diseases with predominant damage to the pyramidal and cerebellar systems (familial amyotrophic lateral sclerosis, Strumpell's disease, Charcot-Marie neural amyotrophy, Werdnig-Hoffmann disease, Friedreich's disease). /Pr/	6	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26			
6.6	Hereditary diseases with predominant damage to the pyramidal and cerebellar systems. Hereditary diseases with predominant involvement extrapyramidal systems /Wed/	6	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26			Summary, frontal survey, test
6.7	Hereditary diseases with predominant involvement extrapyramidal system: Huntington's chorea, torsion dystonia, hepatocerebral dystrophy (Wilson- Konovalov disease), Parkinsonism. /Pr/	6	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26			
6.8	Hereditary neuromuscular diseases (Duchenne disease, Landouzy-Dejerine scapulohumeral form, myotonic dystrophy, Thomson disease). Diagnostics, Treatment. Paroxysmal myoplegia. /Lek/	6	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26			
6.9	Hereditary neuromuscular diseases (Duchenne disease, Landouzy-Dejerine scapulohumeral form, myotonic dystrophy, Thomson disease), paroxysmal myoplegia. /Pr/	6	4	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26	1		Interactive teaching methods . Training with elements of research and development.

6.10	Hereditary neuromuscular diseases. Hereditary metabolic diseases. /Wed/	6	1	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26			Summary, frontal survey, test
6.11	Disorders of lipid, carbohydrate, and amino acid metabolism (lipidoses, galactosemia, phenylketonuria). Diagnostics, treatment /Lek/	6	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26			
6.12	Disorders of lipid, carbohydrate, and amino acid metabolism (lipidoses, galactosemia, phenylketonuria). Phacomatosis (neurofibromatosis). /Pr/	6	4	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26			
6.13	Mitochondrial encephalomyopathies. Diagnosis and treatment. Phacomatosis. (neurofibromatosis, tuberous sclerosis, ataxia- telangiectasia). Diagnostics. Peroxisomal diseases. Diagnostics. /Lek/	6	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26			
6.14	Phacomatosis (neurofibromatosis) /Wed/	6	1	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26			Summary, frontal survey, test
6.15	Written work on genealogy (with defense). /Wed/	6	2	PC-5 PC-16 PC -17	L1.1 L1.2L2.1 L2.2 L2.3L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E17 E18 E19 E20 E24 E25 E26			Writing a pedigree
	<b>Chapter 7. Neurosurgery</b>							
7.1	The subject and objectives of neurosurgery. Methods of examination of neurosurgical patients. Neurosurgical treatment of stroke. /Lek/	6	2	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E9 E11 E12 E13 E15 E16 E18 E19 E20 E24 E25 E26			

7.2	Traumatic brain injury (concussion, contusion, compression), surgical treatment. /Lek/	6	2	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.8 L3.9 L3.11 L3.12 E1 E6 E9 E11 E12 E13 E15 E16 E18 E19 E20 E23 E24 E25 E26			
7.3	Traumatic brain injury (concussion, contusion, compression). Hydrocephalus. Surgical treatment. /Pr/	6	3	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.8 L3.11 L3.12 E1 E6 E9 E11 E12 E13 E15 E16 E18 E19 E20 E23 E24 E25 E26			
7.4	Modern methods of treating traumatic brain injury. /Wed/	6	2	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.8 L3.11 L3.12 E1 E6 E9 E11 E12 E13 E15 E16 E18 E19 E20 E23 E24 E25 E26			Summary, frontal survey, test
7.5	Diagnosis of tumors and tumor-like formations of the brain and spinal cord. Surgical treatment /Lek/	6	2	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E9 E11 E12 E13 E15 E16 E18 E19 E20 E24 E25 E26			
7.6	Diagnosis of tumors and tumor-like formations of the brain. Surgical treatment. Diagnosis and treatment of spinal cord tumors. Surgical treatment. /Pr/	6	3	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E9 E11 E12 E13 E15 E16 E18 E19 E20 E24 E25 E26			
7.7	Basic neuroimaging diagnostic methods tumors of the brain and spinal cord brain. /Wed/	6	2	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.9 L3.11 L3.12 E1 E6 E9 E11 E12 E13 E15 E16 E18 E19 E20 E24 E25 E26			Summary, frontal survey, test

7.8	Preparation of medical history and its defense. /Wed/	6	4	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E9 E11 E12 E13 E15 E16 E18 E19 E20 E24 E25 E26			medical history
7.9	Watch on control. /Exam/	6	35.5	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			
7.10	exam /Krek/	6	0.5	PC-5 PC-16 PC-17 PC-18	L1.1 L1.2L2.1 L2.2L3.3 L3.11 L3.12 E1 E6 E11 E15 E16 E18 E19 E20 E24 E25 E26			testing

## 5. ASSESSMENT FUND

**5.1. Advancement Questions and Assignments** Neurology, Medical Genetics, Neurosurgery (intermediate certification 7-8 semester)

Questions to check the "KNOWLEDGE" level:

It is carried out in the form of blanks testing, 5 options for 100 questions: see Annex №1. Tests for intermediate certification of students of General medicine (700 pieces)

Tasks to check the "SKILLS and EXPERTISE" levels: In the supervised patient it is necessary:

1. to collect complaints and anamnesis of a patient with neurological disease.
2. to examine and evaluate the state of the nervous system.
3. to reveal neurological symptoms and syndromes, to establish a topical diagnosis, to make a preliminary clinical diagnosis.
4. to interpret the results of clinical and additional research methods.
5. to make a clinical diagnosis in the main diseases of the nervous system with the reflection of etiology, topical diagnosis, course, nature and degree of impaired functions.
6. to provide emergency medical care in the detection of patients with urgent neurological pathology.
7. to carry out the

### 5.2. Course Papers Themes

Course paper is not included.

### Assessment Fund

5.3. Test (Annex №1).

Situational tasks (Annex №2). Report (Annex №3).

Abstract (Appendix №4). Control work (Annex №5).

Presentation (Annex №3). Practical skills (Annex №5a).

History of disease (Annex №8).

### 5.4. List of Assessment Tools

Test. Situational tasks. Report. Abstract. Control work. Presentation. Practical skill. History of disease.  Grading scale for the assessment tools in Annex №6
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## 6. EDUCATIONAL AND METHODOLOGICAL AND INFORMATIONAL SECURITY DISCIPLINES (MODULE)

### 6.1. Recommended literature

#### 6.1.1. Main literature

	Authors, compilers	Title	Publishing house, year
L1.1	Allan H., Ropper Martin, A. Samuels, Joshua P. Klein	Adams and Victor's Principles of neurology	2022
L1.2	Drozдов A. A.	Nervous diseases: Educational allowance	Saratov: Scientific book 2019 <a href="http://www.iprbookshop.ru/80991.html">http://www.iprbookshop.ru/80991.html</a>

#### 6.1.2. Additional literature

	Authors, compilers	Title	Publishing house, year
L2.1	PB Raksin	Acute Care Neurosurgery by Case Management, pearls and Pitfalls	Springer, 2022
L2.2	Eelco FM Wijdicks	Examining Neurocritical Patients	2021
L2.3	K. Kulkarni, J. Harrison, M. Baguneid, B. Predergast	Oxford Handbook of Key Clinical	2009
L2.4	Gorbunova IN. N., Strekalov D. L., Suspitsyn E. N., Imyanitov E. N.	Clinical genetics: Textbook	Saint Petersburg: Foliant 2015

#### 6.1.3. Methodological developments

	Authors, compilers	Title	Publishing house, year
L3.1	Comp.: T.O. Musabekova, N.Sh. Usenova	Myasthenia: Educational and methodological allowance	2012

L3.2	Edited by NAS Academician Professor Murzaliyev A.M. Comp. THAT. Musabekova, S.G. Shleifer, E.V. Andrianova	Discirculatory encephalopathy: a textbook on neurology.	B: KRSU, 2013
L3.3	/Compiled by: Musabekova T.O., Shleifer S.G., Andrianova E.V., Rekaeva M.I., Ibatullin I.F., Rysaliev N.T., Khamzina A.I.	Topical diagnostics. : Textbook on General Neurology	B: KRSU, 2014
L3.4	Murzaliyev A.M., Musabekova T.O., Shleifer S.G.	Diagnosis and treatment of acute cerebrovascular accidents (hospital stage, acute and acute periods) : Study guide. Supplemented.	Bishkek 2015
L3.5	Pesin Ya.M., Borodin Yu.I.	Water Homeostasis and Lymphotropic Therapy. Experiment and Clinical Experience: A Monograph	Bishkek: Publishing house KRSU 2015
L3.6	Murzaliyev A.M., Musabekova T.O., Shleifer S.G.	Clinical guidelines for the diagnosis and treatment of acute cerebrovascular accidents (hospital stage, acute and acute periods) in the Kyrgyz Republic. : Clinical guidelines	Bishkek 2014
L3.7	Musabekova T.O., Shleifer S.G., Lutsenko I.L. Edited by Murzaliyev A.M.	Rare clinical cases V neurology: Collection works	Bishkek 2016
L3.8	Mamytov MM.	Gunshot wounds to the skull and brain based on data from local armed conflicts: Monograph	Bishkek 2014
L3.9	Mamytov MM	Neurosurgical diagnostics – true creativity and intuition of the physician. : Monograph.	Bishkek, 2015
L3.10	Musabekova T.O., Khamzina A.I.	Epilepsy: Educational allowance	Bishkek, Publishing House KRSU 2017
L3.11	Musabekova T.O., Shleifer S.G., Vasilenko V.V.	Methodology neurological examinations: educational allowance	Bishkek: Publishing house KRSU 2019
L3.12	Murzaliyev A.M.	Clinical lectures By neurology. Ch. 2: educational allowance	Bishkek: Publishing house KRSU 2020
<b>6.2. Scroll resources information and telecommunications networks "Internet"</b>			
E1	Portal medical online education		<a href="https://med.studio/">https://med.studio/</a>
E2	Institute brain human RAS		<a href="http://www.ihb.spb.ru">http://www.ihb.spb.ru</a>
E3	Nervous diseases		<a href="http://medvuz.info/load/nervnye_bolezni_nevrologija/25">http://medvuz.info/load/nervnye_bolezni_nevrologija/25</a>
E4	State University Scientific center neurology RAMS		<a href="http://www.neurology.ru">http://www.neurology.ru</a>
E5	Clinic head pain And vegetative disorders academician AM Wayne		<a href="http://www.veinclinic.ru">http://www.veinclinic.ru</a>

E6	Scientific center By study stroke	<a href="http://www.stroke-center.ru">http://www.stroke-center.ru</a>
E7	Center children's neurology And epilepsy	<a href="http://www.epileptologist.ru">http://www.epileptologist.ru</a>
E8	National association By struggle With stroke (NABI)	<a href="http://www.nabi.ru">http://www.nabi.ru</a>
E9	"Questions neurosurgery them. N.N. Burdenko"	<a href="http://www.medlit.ru/medrus/jurbur.htm">http://www.medlit.ru/medrus/jurbur.htm</a>
E10	"Neurological magazine"	<a href="http://www.medlit.ru/medrus/nj.htm">http://www.medlit.ru/medrus/nj.htm</a>
E11	"Neurological Herald	<a href="http://www.infamed.com/nb">http://www.infamed.com/nb</a>
E12	"Neurosurgery"	<a href="http://www.mtunet.ru/neurosurger">http://www.mtunet.ru/neurosurger</a>
E13	"Russian neurosurgery"	<a href="http://www.neuro.neva.ru">http://www.neuro.neva.ru</a>
E14	Magazine neurology And psychiatry them. S.S. Korsakov	<a href="https://www.mediasphera.ru/journal/журнал-неврологии-и-">https://www.mediasphera.ru/journal/журнал-неврологии-и-</a>
E15	Medelement (clinical protocols)	<a href="https://medelement.com/">https://medelement.com/</a>
E16	Medical video portal	<a href="http://www.med-edu.ru/">http://www.med-edu.ru/</a>
E17	Medical and genetic scientific center name academician N.P. Bochkova	<a href="https://med-gen.ru/spetcialistam/zhurnal">https://med-gen.ru/spetcialistam/zhurnal</a>
E18	Skoromets A. A., Skoromets A. P., Skoromets T. A. Propaedeutics of Clinical Neurology: Textbook for students of medical universities. -SPb.: Polytechnic, 2011. -322.s.: silt	<a href="https://psv4.userapi.com/s/v1/d/qbWnWSXrwePaokF-">https://psv4.userapi.com/s/v1/d/qbWnWSXrwePaokF-</a>
E19	General Neurology [Text]: textbook / D.T. Khodzhiyeva [etc.]. - Bukhara: "Sadridin Salim Buxoriy" Durдона nashriyoti, 2020. - 672 p.	<a href="https://e-library.sammu.uz/uploads/b">https://e-library.sammu.uz/uploads/b</a>
E20	Mikhailenko A.A. Clinical neurology (semiotics and topical diagnostics) [Electronic resource]: study guide. — Electronic text data. — St. Petersburg: Foliant, 2014. — 432 p. — 978-5-93929-220-7.	<a href="http://www.iprbookshop.ru/60918.html">http://www.iprbookshop.ru/60918.html</a>
E21	Lupanova, R. I. Methodological manual on child neurology. Development of children in the first year of life [Electronic resource]: a teaching aid for students / R. I. Lupanova. - Electronic text data. - St. Petersburg: Institute of Special Pedagogy and Psychology, 2009. - 48 p. - 978-5-8179-0105-4. <a href="http://www.iprbookshop.ru/29981.html">http://www.iprbookshop.ru/29981.html</a>	<a href="http://www.iprbookshop.ru/29981.html">http://www.iprbookshop.ru/29981.html</a>
E22	Vilensky, B. S. Acute neuroinfections [Electronic resource]: reference book / B. S. Vilensky. — Electronic text data. — St. Petersburg: Foliant, 2008. — 68 p. — 978-5-93929-169-9.	<a href="http://www.iprbookshop.ru/61919.html">http://www.iprbookshop.ru/61919.html</a>
E23	Grigoriev, E. V. Severe traumatic brain injury. Clinical pathophysiology, anesthesia and intensive care [Electronic resource]: study guide / E. V. Grigoriev, Yu. A. Churlyayev. - Electronic text data. - Kemerovo: Kemerovo State Medical Academy, 2006. - 68 p. - 2227-8397.	<a href="http://www.iprbookshop.ru/6235.html">http://www.iprbookshop.ru/6235.html</a>
E24	American Academy of Neurology	<a href="https://www.neurology.org/">https://www.neurology.org/</a>

E25	medscape	<a href="https://emedicine.medscape.com/neurology">https://emedicine.medscape.com/neurology</a>
E26	Department of Neurology at the McGovern Medical School.	<a href="https://med.uth.edu/neurology/">https://med.uth.edu/neurology/</a>
<b>6.3. List of Information and Education Technologies</b>		
<b>6.3.1 Competence-based Educational Technologies</b>		
6.3.1.1	Traditional educational technologies-lectures, seminars, focused primarily on the knowledge and ways of action, transferred to students in the finished form and intended for reproducing the assimilation and analysis of specific samples. Lecture material is provided to students using multimedia equipment and periodic presentation of thematic patients. The use of chambers, classrooms for students.	
6.3.1.2	Innovative educational technologies form systemic thinking and the ability to generate ideas in solving various situational problems. These include situational tasks, brainstorming, role-playing games, work in small groups, scientific and practical conferences.	
6.3.1.3	Information educational technologies - independent use of computer equipment and Internet resources by students to perform practical tasks and independent work. For the best assimilation of material and independent work students prepare abstracts, reports and presentations.	
<b>6.3.2 List of Information Reference Systems and Software</b>		
6.3.2.1	Electronic library system "ZNANIUM.COM"	
6.3.2.2	Information system "Single window of access to educational resources" ( <a href="http://window.edu.ru/">http://window.edu.ru/</a> )	
6.3.2.3	Medical video portal ( <a href="http://www.med-edu.ru/articles">http://www.med-edu.ru/articles</a> )	
6.3.2.4	Medical portal ( <a href="http://medvuz.info/load/nervnye_bolezni_nevrologija/25">http://medvuz.info/load/nervnye_bolezni_nevrologija/25</a> )	
6.3.2.5	"Electronic library" of KRSU ( <a href="http://lib.krsu.kg">http://lib.krsu.kg</a> )	
O4	Research center for the stroke study	<a href="http://www.stroke-center.ru">http://www.stroke-center.ru</a>
O5	GU scientific center of neurology RAMS	<a href="http://www.neurology.ru">http://www.neurology.ru</a>
O6	Pediatric neurology and epilepsy center	<a href="http://www.epileptologist.ru">http://www.epileptologist.ru</a>
O7	National Association of stroke (NABI)	<a href="http://www.nabi.ru">http://www.nabi.ru</a>
<b>7. COURSE (MODULE) LOGISTICS</b>		
7.1	The basis of the discipline: National Hospital of the Health Ministry of the Kyrgyz Republic (third level hospital). There are 8 specialized departments, of which 4 neurological and 2 neurosurgical, neuro-traumatic 2; number of beds - 240; 4 operating rooms; 2 ICU; intensive care unit.	
7.2	There are 6 standard equipped classrooms with 90 seats, a total area of 180 sq.m. (block - desks, couches, study boards).	
7.3	The Department is equipped with a multimedia complex (laptop, personal computer, projector). Students have access to information stands (4 PCs.), posters (100 PCs.), electronic library (30 textbooks), educational films (30 PCs.), the base of clinical material (MRT, CT, craniogram, spondylogram, EEG).	

**8. COURSE (MODULE) PROFICIENCY METHODOICAL GLUIDELINES (FOR STUDENT)  
[TECHNOLOGICAL MAP OF THE DISCIPLINE (Annex №7. The technological map of GM).**

**METHODOICAL RECOMMENDATIONS FOR THE DISCIPLINE**

Recommendations when using materials of educational and methodical complex.

Specificity in the study of the section on General neurology is the use of basic educational and methodological techniques: students work in lectures, practical classes, for certain topics the use of visual posters, models, multimedia slides, followed by a thematic patients demonstration.

The specificity of the sections on private neurology-includes the study of nosology using additional reading material (monographs, manuals, guidelines), as well as the analysis and curation of thematic patients with writing the history of the disease (patients with vascular, inflammatory diseases of the brain and spinal cord, progressive, demyelinating diseases, pathology of the peripheral nervous system, autonomic dysfunction)

The specificity of the section "Neurosurgery" involves the study of the peculiarities of the neurosurgical patients examination, obtaining theoretical and practical skills in the diagnosis of neurosurgical diseases, familiarization with additional diagnostic

methods (MRI, CT, R-graphics, angiography, PET) and the principles of surgical treatment.

The specificity of the section "Medical genetics" includes the peculiarities of examination of the patient and identification of congenital or hereditary disease. The student should acquire skills in formulating an assumed diagnosis of chromosomal pathology and some of the most common hereditary syndromes and diseases, to determine the need for additional examination, to identify families with an increased risk of hereditary pathology. Recommendations in the study of certain subjects of the discipline: In the study of the topic №1,2 special attention should be paid to the schematic representation of the pathways in motor and sensory areas in order of topical diagnostics of the lesion levels.

In the study of the topic №3, should pay attention to link between extrapyramidal and cerebellar systems, to learn to separate certain symptoms and their subsequent grouping into syndromes.

In the study of the topic №4,5 should pay attention to the anatomy of the cranial nerves of the medulla oblongata (IX, X, XI, XII) and Pons (V, VII, VIII), midbrain (III, IV), the methodology of the study and the symptoms of their lesions.

When studying topics from the section of private neurology, attention should be paid to modern approaches in the diagnosis and treatment of neurological diseases according to ICD and evidence-based medicine.

Methodical recommendations for independent extracurricular work of students in the study of the discipline.

The study of the theoretical part of the discipline is designed not only to deepen and consolidate the knowledge gained in the classroom, but also to promote the development of students' creative skills, initiatives and the organization of their free time.

Independent work of the student in the study of the discipline includes::

- reading the recommended literature, Internet sources and learning the theoretical material of the course;
- preparation for various forms of control (situational task, control work, test); - writing the history of the disease of the supervised patient.

Planning the time required for the study of the discipline, students must be carried out throughout the semester, providing for a regular repetition of the material.

Work with educational literature is considered as a kind of academic work on the subject within the hours allocated for its study (in the section of the self work).

Each student has access to the library collections of the University and the Department.

The student's work in the group creates a sense of collectivism and sociability.

Training of students contributes to the formation of their ethical and deontological skills of communication with neurological patients.

The initial level of knowledge of students is determined by the cut of knowledge, the current control of mastering the discipline, as well as an oral survey during classes, during clinical trials, in solving typical situational problems.

#### SITUATIONAL TASK (Annex 2) Task

example.

The patient has a decrease in strength in the hands, a decrease in tendon reflexes and muscle tone, fibrillar and fascicular twitching of the muscles of the shoulder girdle are determined, the movement of the legs is not violated. What's the name of the motor syndrome? Which entities are affected?

Standard response to the situational problem.

Peripheral paraparesis. Damage to the anterior horn of the spinal cord at the level of segments C4-C6.

#### REPORT

Preparation of the report for the lesson.

The main stages of preparation of the report: selection of topics; teacher consultation; preparation of the plan of the report;

working with sources and literature, the collection of material; writing the text of the report; making the manuscript and providing it to the teacher before the report, which determines the readiness of the student to speak; speech, answers to questions. Subject of the report (Annex 3).

#### PRESENTATION in Microsoft PowerPoint

The presentation provides an opportunity to demonstrate innovative ideas, developments and plans, according to a given topic (Annex 3). Educational presentation is the result of independent work of students, through which they clearly demonstrate the materials of public speaking to the audience.

A computer presentation is a file with the necessary materials, which consists of a sequence of slides. Each slide contains meaningful information because it is not automatically transferred to the next slide, as opposed to a text document. One of the main programs for creating presentations in the world is the Microsoft PowerPoint program.

Presentation structure:

It is possible to keep active attention of listeners no more than 15 minutes, and, therefore, at the average calculation of viewing time - 1 minute per slide, the number of slides should not exceed 15.

The first slide of the presentation should contain the topic of the work, the surname, the name and the patronymic of the contractor, the number of the study group, as well as the surname, name, patronymic, position and academic degree of the teacher. On the second slide it is advisable to present the purpose and summary of the presentation. Subsequent slides should be divided into sections according to the work plan items.

The final slide contains the most basic, the most important part of the presentation content.

Recommendations for design of presentations in Microsoft Power Point:

For visual perception of the text on the slides in the presentation must be at least 18 pt, for headings - no less than 24pt.

The presentation layout should be designed in strict colors. The background should not be too bright or colorful. The text should read well. The same elements on different slides must be the same color.

Space slide (screen) should be used due to, for example, increasing the scale of the drawing. In addition, if possible, it is necessary to occupy the upper % of the slide area (screen), because the lower part of the screen is poorly viewed from the last rows. Each slide must contain a title. At the end of the headers not followed by a period. The titles should reflect the output from the information on the slide. Caption formatting can only be used in capital letters if it is short.

The slide should be placed no more than 5-6 lines and no more than 5-7 words per sentence. The text on the slides should be easy to read.

When adding images, charts, diagrams, screenshots, it is necessary to check the text of these elements for errors.

You can't overload slides with animation effects - it distracts listeners from the semantic content of the slide. To change slides, use the same animation effect.

## ABSTRACT

Guidelines for writing the essay.

1. The subject of the abstract is chosen in accordance with the interests of the student and should correspond to the approximate list (Annex 4).
2. Abstract should be based on the study of several additional to the basic literature sources (monographs, articles).
3. The abstract plan must be authored. It shows the approach of the author, his opinion, analysis of the problem. usually, these are special monographs or articles.
3. The abstract plan must be authored. It shows the approach of the author, his opinion, analysis of the problem.
4. All facts presented in the abstract and borrowed considerations should be accompanied by references to the source of information.
5. It is unacceptable to simply compose an abstract from pieces of borrowed text. All quotations must be in quotation marks with the source and page in parentheses. established scientific ethics is considered a gross violation of copyright.
6. Abstract is made in the form of text on sheets of standard format (a-4) in the font TimesNewRoman, 14. It begins with the title page, which indicates the name of the University, the discipline, the subject of the essay, the name and initials of the student, the year and geographical location of the University. This is followed by a table of contents with section pages. It is desirable to divide the text of the abstract into sections: chapters, sub-chapters and to title them. The use of quantitative data and illustrations (graphs, tables, diagrams, figures) in the abstract is welcome.
7. Complete abstract sections "Conclusion" and "references". In conclusion, the main conclusions are clearly stated in the thesis form and usually numbered.
8. The list of references should be prepared in full compliance with applicable standard (rules), including special punctuation. In General, the most frequently used order of bibliographic references in our country is as follows:  
Author I. O. Title of the book. Place of publication: Publisher, year of publication. The total number of pages in the book. Author I.O. Title of the article // Title of the journal. Publication date. Volume. \_\_ No. \_\_. Pages from \_\_ to \_\_.  
Author I.O. Title of the article / Title of the collection. Place of publication: Publisher, year of publication. Pages from \_\_ to \_\_.  
Example content: Name: Volume: pages 13-15

## CONTROL WORK

Is executed in the form of a written answer to the question of the task (Annex 5) or the solution of situational tasks (Annex 2) accordingly, the thematic plan of the practical classes. The content of answers to General neurology should focus on the knowledge of pathways, neurological symptoms and syndromes, making a topical diagnosis. The content of answers on private neurology should focus on knowledge of etiology, pathogenesis, criteria for diagnosis of major neurological diseases and justification of clinical diagnosis, treatment and prevention of major neurological diseases.

The purpose of the control work is to determine the quality of material assimilation.

When preparing students for the test work should use lecture material and textbooks listed in the main list of references of the working program of the discipline.

## PRACTICAL SKILLS NEUROLOGICAL EXAMINATION

Students study the methods of neurological examination (Annex №5A), work out practical skills in a group, work with patients in the chambers of the neurological Department under the guidance of a teacher.

Is recommended to use methodical recommendations to practical classes, posters, tables, methodological developments of the Department "Technique of the neurologic examination."

Technical equipment: the Department has neurological hammers, tuning fork, tonometer, compass. The final stage of the work is the supervision of the patient and the registration of the history of the disease.

## HISTORY OF DISEASE

The scheme of writing history in Annex 8

INTERIM CERTIFICATION is carried out using the test control, oral examination and decision of situational tasks. TESTS

The proposed tests for the interim assessment are monosyllabic, with one correct answer (Annex 1).

To prepare for the midterm assessment, students are recommended to use the following textbooks:

1. For General Neurology:

-Topic Diagnostics. A Textbook on General Neurology /Authors: Musabekova T.O., Shleifer S.G., Andrianova E.V., Rekaeva M.I., Ibatullin I.F., Rysaliev N.T., Khamzina A.I./ - B: KRSU, 2014. – 183 pages  
-Allan H., Ropper Martin, A.Samuels, Joshua P. Klein Adams and Victor's Principles of Neurology, 2022

3. For the section on Medical Genetics:

-Gorbunova V.N. Clinical Genetics: A Textbook. St. Petersburg: Foliant 2015. - 408 pages.

4. For the neurosurgery section:

P.B. Raksin, Acute Care Neurosurgery by Case Management, Pearls and Pitfalls, Springer, 2022

-Gusev, E.I., Neurology and Neurosurgery: in 2 volumes: a textbook. - Moscow: GEOTAR-Media, 2013. - 624 pages.

THE TEST FOR INTERMEDIATE ATTESTATION

(7-8 semester)

1. Select a feature that is not characteristic of the lesion of the facial nerve 1) dysphagia;
  - 2) flattening of the frontal folds;
  - 3) flattening of the nasolabial folds;
  - 4) Bell's symptom;
  - 5) the symptom of the racket

#
2. Weber syndrome is characterized by:
  - 1) lesion of the XII pair on the side of the hearth and central hemiparesis on the opposite side
  - 2) lesion of the VII pairs on the side of the hearth and central hemiparesis on the opposite side
  - 3) lesion of the VI pair on the side of the hearth and central hemiparesis on the opposite side
  - 4) lesion of the third pair on the side of the hearth and central hemiparesis on the opposite side 5) there is no correct answer

#
3. What symptom is characteristic of bulbar paralysis?
  - 1) high pharyngeal reflex;
  - 2) pharyngeal reflex is absent;
  - 3) spontaneous crying;
  - 4) symptoms of oral automatism;
  - 5) increase of tendon reflexes

#
4. Through the upper legs of the cerebellum passes the pathway
  - 1) posterior spinal cerebellar
  - 2) anterior spinal cerebellar
  - 3) corticopontocerebellar
  - 4) occipito-temporo-ponto-cerebellar
  - 5) spinal thalamic

#
5. What symptom is not observed in the lesion of the cerebellum?
  - 1) muscular hypotension
  - 2) myoclonias;
  - 3) intention tremor;
  - 4) scandalous speech;
  - 5) instability in the Romberg sample.

#
6. Which of these symptoms is not a sign of lesion hypothalamus?
  - 1) disorder of thermoregulation;
  - 2) hemiparesis;
  - 3) sleep and wake rhythm disorders;
  - 4) neuroendocrine disorders;
  - 5) disorder of food and sexual behavior

#
7. For sensitive ataxia characteristic:
  - 1) occurs in lesions of the paths Gaulte, Burdah
  - 2) patient controls gait with the help of sight
  - 3) walks, lifting legs high, does not feel the soil under his feet
  - 4) muscular-articulate senseis disturbed
  - 5) all of the above

#
8. Binasalhemianopsia comes due to lesion of
  - 1) central parts of the optic chiasm
  - 2) outer parts of the optic chiasm
  - 3) optic radiance
  - 4) optic tracts
  - 5) optic nerve

#
9. Lagophthalmos, fluttering of the frontal and nasolabial folds on the affected side, misalignment of the mouth in the healthy side are characteristic for 1) brain tumors
  - 2) encephalitis
  - 3) neuritis of the facial nerve
  - 4) acute disorders of cerebral circulation
  - 5) trigeminal neuralgia

#

10. The sciatic nerve is made up of fibers of roots 1) S1-S2  
2) L4-S3  
3) S2-S3  
4) L5-S5  
5) L3 - L5 #
11. Pain on the posterior-lateral surface of the thigh is characteristic of the lesion of the spine:  
1) L2  
2) L4  
3) L5  
4) S1  
5) S5  
#
12. Weber syndrome is characterized by:  
1) lesion of the XII pair on the side of the hearth and central hemiparesis on the opposite side  
2) lesion of the VII pairs on the side of the hearth and central hemiparesis on the opposite side  
3) lesion of the VI pair on the side of the hearth and central hemiparesis on the opposite side  
4) lesion of the third pair on the side of the hearth and central hemiparesis on the opposite side 5) there is no correct answer #
13. Where is the body of the third neuron for all kinds of sensitivity:  
1) in the spinal ganglia  
2) in the posterior horns of the spinal cord  
3) in the ventrolateral nucleus of the thalamus  
4) in the cerebral cortex, in the postcentralgyrus  
5) in the cerebral cortex, in the precentralgyrus  
#
14. Characteristic of the lesion of the posterior horns of the spinal cord is:  
1) muscular atrophy  
2) dissociated loss of pain and temperature sensitivity  
3) conductive disorders of sensitivity 4) fibrillation of the muscles.  
5) areflexia  
#
15. Lesion of the hypoglossal nerve (XII) is characterized by:  
1) violent crying  
2) nausea and vomiting  
3) dysphonia  
4) deviation of the tongue  
5) sensory aphasia  
#
16. To detect disorders of discriminatory sensitivity should check whether the patient is able to determine  
1) the place of contact when applying irritation to various parts of the body  
2) painted on the skin numbers, letters, simple shapes  
3) two at a time caused irritation on nearby areas of the body  
4) touch familiar objects  
5) the direction of movement of the object on the formation of folds on the skin.  
#
17. For the Millard-Gubler syndrome atypical:  
1) lesion of the XII pair on the side of the hearth and central hemiparesis on the opposite side  
2) lesion of the VII pairs on the side of the hearth and central hemiparesis on the opposite side  
3) lesion of the VI pair on the side of the hearth and central hemiparesis on the opposite side  
4) lesion of the third pair on the side of the hearth and central hemiparesis on the opposite side 5) there is no correct answer  
#
18. Damage to one half of the spinal cord is characterized by:  
1) alternating type of sensitivity disorders  
2) astereognosis  
3) conductive disorders of sensitivity  
4) disorders of sensitivity on polyneuritic type  
5) Brown-Sequard syndrome  
#
19. For neuropathy of the facial nerve typical  
1) ptosis  
2) half face hyperesthesia  
3) paresis of mimic muscles of half face  
4) divergent strabismus  
5) disorders of chewing  
#
20. For the impairment of the vagus nerve is not characteristic  
1) dysphonia  
2) dysphagia

- 3) heart rhythm disturbances
- 4) taste disturbance
- 5) changes in blood pressure #
21. Which of the following symptoms is not characteristic for a lesion of the peripheral motor neuron? 1) spastic tone
- 2) muscle hypotension
- 3) reduction of tendon reflexes
- 4) hypotrophy of the muscles
- 5) "bioelectric silence" on EMG #
22. Foville's syndrome is characterized by:
- 1) lesion of the III cranial nerve
- 2) lesion of the VI and VII cranial nerves
- 3) lesion of the VI, VII, VIII cranial nerves
- 4) lesion of the VII, VIII cranial nerves
- 5) lesion of the IX and X cranial nerves #
23. During the damage of the right hemisphere of a brain at right-handed there are cortical speech disorders in the form of: 1) aphasia
- 2) alexia
- 3) do not arise 4) agraphia
- 5) dysarthria.
- #
24. True incontinence occurs when there is injury of:
- 1) the precentral frontal lobe gyrus
- 2) the thalamus
- 3) the pyramidal paths on 2 sides
- 4) the spinal pelvic center
- 5) the pyramidal path on 1 side
- #
25. The lesion of the striar system is characterized by:
- 1) ataxia
- 2) the appearance of hyperkinesia
- 3) hemiparesis
- 4) Parkinson's syndrome 5) seizures #
26. During the injury of what part of the visual pathway does heteronymous hemianopsia occur? 1) the chiasm;
- 2) the outer geniculate body;
- 3) optic nerve;
- 4) the visual tract;
- 5) cortex of the occipital lobe.
- #
27. Select a symptom that is not typical for the damage of the parietal lobe: 1) astereognosis;
- 2) apraxia;
- 3) acalculia;
- 4) alexia;
- 5) visual agnosia.
- #
28. What syndrome is characteristic for lesion of brain stem?
- 1) aphasia;
- 2) alternating syndrome;
- 3) visual agnosia;
- 4) hyperkineses;
- 5) Brown-Sequard syndrome.
- #
29. Reflexes of oral automatism indicate lesion of paths:
- 1) corticospinal;
- 2) corticonuclear;
- 3) corticopontocerebellar;
- 4) rubrospinal;
- 5) Turkbeam
- #
30. Pathological flexion reflex is a reflex:
- 1) Babinsky;
- 2) Oppenheim;
- 3) Rossolimo; 4) Gordon; 5) Scheffer.
- #
31. Closure of the arc of the reflex from the tendon of the biceps muscle of the shoulder occurs at the level of segments of the spinal cord:
- 1) S3-S4;
- 2) C5-C6;
- 3) S7-C8; 4) C8-Th1;
- 5) Th1-Th2.
- #
32. Segmental parasympathetic apparatus includes:

- 1) lateral horns of the spinal cord; 2) paravertebral chain;
- 3) vegetative nuclei of the thalamus and the limbic brain; 4) vegetative nuclei of the brain stem and spinal pelvic center; 5) hypothalamus and vegetative cells of the cerebral cortex. #
33. The clinical picture of Claude-Bernard-Horner syndrome includes:
  - 1) divergent strabismus, mydriasis, ptosis;
  - 2) convergent strabismus;
  - 3) ptosis, myosis, enophthalmos; 4) rotator nystagmus, anisocoria; 5) vertical gaze paresis, nystagmus.#
34. True urinary incontinence occurs:
  - 1) in case of lesion of paracentral lobule;
  - 2) in case of lesion of the thalamus;
  - 3) in case of lesion of the pyramid pathway on one side; 4) in case of lesion of the pyramid pathway from two parties; 5) in case of lesion of the spinal pelvic center.#
35. Homonymous hemianopsia is not observed in lesions of
  - 1) the visual tract
  - 2) the optic chiasm 3) visual radiance
  - 4) the internal capsule.
  - 5) true 3 and 4#
36. When there is bulbar paralysis?
  - 1) in case of lesion of the olfactory bulb and optic nerve (I and II pairs),
  - 2) in case of lesion of oculomotor nerves (III, IV and VI pairs) ensuring movement of eyeball,
  - 3) in case of lesion of VI and VII cranial nerves,
  - 4) in case of lesion of the IX, X, XII cranial nerves,
  - 5) in case of damage to the vessels of the motor and respiratory centers located in the medulla oblongata.#
37. Name the cranial nerves of the cerebellopontine angle:
  - 1) I and II,
  - 2) III, IV and VI,
  - 3) IV and V,
  - 4) V, VI, VII and VIII,
  - 5) III, IV and VIII,#
38. For the Millard-Gubler syndrome typical:
  - 1) lesion of the XII pair on the side of the hearth and central hemiparesis on the opposite side
  - 2) lesion of the VII pairs on the side of the hearth and central hemiparesis on the opposite side
  - 3) lesion of the VI pair on the side of the hearth and central hemiparesis on the opposite side
  - 4) lesion of the third pair on the side of the hearth and central hemiparesis on the opposite side 5) there is no correct answer#
39. Lesions of the frontal lobes are characterised by:
  - 1) ataxia
  - 2) astereognosis
  - 3) hemianopsia
  - 4) autotopagnosia
  - 5) sensitive ataxia#
40. Isolated lesion of the trochlear nerve:
  - 1) causes difficulties when descending stairs
  - 2) causes the head tilt
  - 3) do not disturb the look up
  - 4) all above is true
  - 5) everything above is wrong#
41. The lesion of the right visual tract leads to:
  - 1) left-sided homonymous hemianopsia
  - 2) right-sided homonymous hemianopsia
  - 3) blindness in the right eye
  - 4) blindness on the left eye
  - 5) binasal hemianopsia#
42. Clinical manifestations of a tumor of the occipital lobe are:
  - 1) hemiparesis;
  - 2) dysarthria;
  - 3) anosmia;
  - 4) hemianopsia; 5) sensitive ataxia. #
43. Which of the following motor symptoms is not characteristic of parkinsonism:
  - 1) the phenomenon of "cogwheel"
  - 2) chorea;
  - 3) propulsions;

4) mask-like face; 5) a shuffling gait.

#

44. The knee tendon reflex is locked on segments level:

1) S1-S4;

2) S2 - S3; 3)

S1-S2;

4) L4-L5; 5) L2-L3.

#

45. Alternating Foville syndrome occurs in lesions of:

1) the nucleus of the oculomotor nerve (III) and pyramid pathway

2) nuclei of the abducens, facial (VI,VII) nerves and pyramid pathway

3) the nucleus of the facial nerve (VII) and pyramid pathway

4) the nucleus of the XII nerve (XII) and pyramid pathway

5) the nuclei of the glossopharyngeal and vagus (IX,X) nerves and pyramidal pathway. #

46. Charcot triad includes:

1) nystagmus, hypotonia, unsteadiness in Romberg

2) nystagmus, scandalous speech, loss of abdominal reflexes

3) scandalous speech, hypotonia, unsteadiness in Romberg

4) hemianesthesia, homopages, hemianopsia

5) dysphagia, dysarthria, dysphonia

#

47. Periosteal reflex is:

1) knee

2) mandibular

3) bending-elbow

4) corneal

5) knee

#

48. Parkinsonism is characterized by syndromes:

1) akinetic-rigid

2) vestibular

3) tpyramid

4) vestibular-cerebellar

5) hypotonic- hyperkinetic

#

49. For the detection of amnesic aphasia should 1) check oral score

2) ask the patient to name the surrounding objects

3) ask the patient to read the text

4) to make sure that patient understands the reversed speech

5) conduct a "drawing hours" test

#

50. In the lesion of the trigeminal (V) nerve occurs:

1) paresis of the one half of face

2) disorder of the sensitivity of the skin

3) tearing and paresis of the one half of face

4) hearing loss

5) hyperacusis

#

51. Anisocoria occurs in lesions of:

1) VI cranial nerve

2) IV cranial nerve

3) III cranial nerve

4) V cranial nerve

5) II cranial nerve

#

52. Lesion of the cerebellum vermis leads to ataxia

1) dynamic

2) vestibular

3) static

4) sensitive

5) psychogenic

#

53. Intention tremor and miss when performing the finger-nasal samples are typical

1) for static ataxia

2) for dynamic ataxia

3) for frontal ataxia

4) for sensitive ataxia

5) for vestibular ataxia

#

54. In case of lesion of the visual tract, hemianopsia occurs

- 1) binaza
- 2) homonymous
- 3) bitemporal
- 4) lower quadrant
- 5) amaurosis
- #
55. Homonymous hemianopsia is not observed in lesions of
  - 1) the visual tract
  - 2) the optic chiasm
  - 3) visual radiance
  - 4) inner capsule
  - 5) the cortex of the occipital lobe
- #
56. A symptom of peripheral lesion of the facial (VII) nerve is:
  - 1) paresis of the masticatory muscles on the affected side
  - 2) isolated omission of the angle of the mouth on the side of the lesion
  - 3) isolated omission of the angle of the mouth on the contralateral side
  - 4) reduced taste on the front 2/3 of the tongue on the side of the lesion
  - 5) paresis of the upper and lower mimic muscles on the side of the lesion
- # 57. Athetosis is:
  - 1) slow worm-shaped hyperkinesis of the brush
  - 2) throwing hyperkinesis of the extremities
  - 3) torsional hyperkinesis of the body
  - 4) stereotypical contraction of separate muscle groups
  - 5) rigidity, slowness of movements
- #
58. Tumor of the temporal lobe of the dominant hemisphere is characterized by
  - 1) motor, sensory aphasia
  - 2) sensory aphasia
  - 3) motor, semantic aphasia
  - 4) sensory aphasia, autotopagnosia
  - 5) motor aphasia, autotopagnosia
- #
59. Jackson syndrome is characterized by:
  - 1) lesion of the XII pair on the side of the hearth and central hemiparesis on the opposite side
  - 2) lesion of the VII pair on the side of the hearth and central hemiparesis on the opposite side
  - 3) lesion of the VI pair on the side of the hearth and central hemiparesis on the opposite side
  - 4) lesion of the III pair on the side of the hearth and central hemiparesis on the opposite side
  - 5) the correct answer is no
- #
60. A light paresis can be detected with a test of: 1) Ashner  
2) Queckenstedt. 3) Stukey 4) Barre.  
5) Romberg
- #
61. The patient has an attack of pale skin, accompanied by tachycardia, elevation of blood pressure, febrile tremor, hyperhidrosis. What's the name of the seizure?
  - 1) menyer
  - 2) epileptic
  - 3) sympatho-adrenal
  - 4) cardiac
  - 5) vagoinsular
- #
62. Patient with sensory aphasia
  - 1) cannot speak and does not understand the speech
  - 2) understands the spoken language, but cannot speak
  - 3) can speak but forgets the names of the items
  - 4) does not understand the speech, but controls his own speech
  - 5) does not understand addressed speech and does not control his own speech
- #
63. In what part of the brain stem does a complete decussation of the pyramidal paths occur?
  - 1) in the middle brain
  - 2) in the pons
  - 3) in the lower part of the medulla oblongata
  - 4) in the upper part of the medulla oblongata
  - 5) full decussation does not occur at all
- #
64. Suprasegmental division of the nervous system includes:
  - 1) lateral horns of the spinal cord
  - 2) borderline sympathetic trunk
  - 3) the limbic system
  - 4) vegetative nuclei of the brain stem
  - 5) all answers are correct
- #
65. To the concentric narrowing of the visual field leads to incomplete compression of the

- 1) the visual tract
- 2) the optic chiasm
- 3) the outer geniculate body
- 4) visual radiance
- 5) optic nerve
- #
66. For the bulbar syndrome is not typical:
  - 1) atrophy of the muscles of the tongue
  - 2) dysphagia
  - 3) dysarthria
  - 4) dysphonia
  - 5) increased pharyngeal reflex
- #
67. The sensitive pathways include:
  - 1) pyramid pathway
  - 2) the spino-thalamic pathway
  - 3) rubrospinal pathway
  - 4) vestibulospinal pathway
  - 5) olivospinal pathway
- #
68. Vegetative formations of the spinal cord are located in:
  - 1) the anterior horns o
  - 2) the lateral horns
  - 3) the posterior horns
  - 4) the anterior gray soldering
  - 5) the posterior columns
- #
69. In lesions of the cerebellum are not found:
  - 1) muscular hypotension
  - 2) myoclonias
  - 3) scandalous speech
  - 4) intention tremor
  - 5) ataxia
- #
70. Ptosis, miosis and enophthalm are typical for the lesions of:
  - 1) front horns
  - 2) lesions of the lateral horns of the spinal cord C1-C4
  - 3) lesion of the lateral horns of the spinal cord C8-D1
  - 4) lesion of the lateral horns of the spinal cord D3-D5
  - 5) lesion of the posterior horns
- #
71. Lassegue symptom is characterized bec:
  - 1) lumbosacral radiculitis 2) intercostal neuralgia
  - 3) cervical-brachial radiculitis
  - 4) hemorrhagic stroke
  - 5) paralysis of the facial nerve
- #
72. Bulbar syndrome is characterized by everything except:
  - 1) respiratory disturbance
  - 2) atrophy and fibrillation of the tongue
  - 3) no pharyngeal reflex
  - 4) chopper
  - 5) symptoms of oral automatism
- #
73. For the lesion of the anterior roots of the spinal cord is typical:
  - 1) disturbance of the sensitivity in radicular type.
  - 2) hypertonicity of muscles
  - 3) pathological reflex of Babinsky
  - 4) peripheral paresis
  - 5) foot clonus
- #
74. Wernicke-Mann's posture is typical for the lesions of: 1) anterior horns of the spinal cord
- 2) occipital lobe of the brain
- 3) the internal capsule
- 4) lateral columns of the spinal cord 5) radiant corona #
75. During complete transverse lesions in the upper thoracic segments the following is not detected: 1) spastic paraparesis
- 2) spastic tetraparesis
- 3) urine retention
- 4) disorder of sensitivity on conduction type
- 5) trophic disorders below the lesion
- #
76. The lesion of the striar system is characterized by:

- 1) ataxia
- 2) the appearance of hyperkinesis
- 3) hemiparesis
- 4) Parkinson's syndrome
- 5) epileptic seizures
- #
77. For hyperkinetic syndrome is not typical:
  - 1) high muscle tone;
  - 2) low muscle tone;
  - 3) reduction of symptoms in sleep and increase in excitement;
  - 4) excessive motor activity;
  - 5) emotional lability
- #
78. The clinical picture of lesions of the vagus nerve:
  - 1) hearing impairment, vestibular function;
  - 2) dysarthria, deviation of the tongue to the side;
  - 3) tachycardia, reduction of peristalsis, violation of swallowing, breathing; 4) disorder of taste on the posterior third of the tongue, impaired salivary flow; 5) loss of brow, corneal reflexes. #
79. Spastic paralysis is characterized by
  - 1) reduction of tendon reflexes
  - 2) muscle atrophy
  - 3) the presence of pathological reflexes
  - 4) decreased muscle tone
  - 5) fibrillation, fasciculation
- #
80. Instability in the posture of Romberg at eye closure is greatly enhanced if there is ataxia
  - 1) cerebellar
  - 2) sensitive
  - 3) vestibular 4) cortical
  - 5) true 1 and 2
- #
81. Instability in the posture of Romberg at eye closure is greatly enhanced if there is ataxia
  - 1) cerebellar
  - 2) sensitive
  - 3) vestibular 4) cortical
  - 5) psychogenic
- #
82. The lesion of the cauda equina of the spinal cord is accompanied by
  - 1) flaccid paresis of the legs and violation of the sensitivity of the root type
  - 2) spastic paresis of the legs and pelvic disorders
  - 3) a violation of deep sensitivity distal portions of the legs and urinary retention
  - 4) spastic paraparesis of the legs without sensitivity disorders and impaired function of pelvic organs 5) spastic paraparesis of the legs
- #
83. Hemispheric paresis of the eye (the patient looks at the lesion focus) is associated with the lesion of the lobe
  - 1) frontal
  - 2) temporal
  - 3) parietal
  - 4) occipital
  - 5) parietal and occipital
- #
84. Dysphagia occurs when the cranial nerves are affected:
  - 1) IX-X
  - 2) VIII-XII
  - 3) VII-XI
  - 4) VII, X, XII
  - 5) VII, IX-X
- #
85. To test meningeal Kernig symptom
  - 1) bend the patient's head forward
  - 2) press on the area of the pubic symphysis
  - 3) straighten the patient's leg bent at right angles in the knee and hip joints
  - 4) squeeze the quadriceps thigh muscle
  - 5) tap on a zygomatic arc
- #
86. The combination of swallowing and phonation disorders, dysarthria, paresis of the soft palate, lack of pharyngeal reflex and tetraparesis indicates lesion of
  - 1) the legs of the brain
  - 2) nuclei of the pons of the brain
  - 3) nuclei of the medulla oblongata
  - 4) tires of the midbrain 5) spinal cord #
87. To study the patency of the subarachnoid space using a Queckenstedt test we should
  - 1) compress on cervical veins within 5-10 seconds
  - 2) squeeze the abdominal aorta
  - 3) put pressure on the anterior abdominal wall
  - 4) tilt the patient's head back
  - 5) any manoeuvre meets the conditions of the sample #
88. The innervation of the pupil sphincter is carried out by the nerve: 1)

III

- 2) IV
- 3) VI
- 4) II
- 5) V

#

89. Select a symptom of the tension:

- 1) Lessage symptom
- 2) Kernig symptom
- 3) Lassegue symptom
- 4) Brudzinsky symptom
- 5) Rossolimo symptom #

90. Disturbances in the understanding of complex logical-grammatical structures found in aphasia:

- 1) sensory
- 2) motor
- 3) amnesic
- 4) semantic
- 5) opticomnestic aphasia

#

91. When the inner capsule is damaged, it is noted:

- 1) Hemiparesis
- 2) Paraparesis
- 3) Monoplegia 4) Ataxia
- 5) Tetraparesis

#

92. Polyneuretic type of sensory dysfunction is characterized by:

- 1) sensitivity disorder in the area of nerve innervation
- 2) hyposthesia in the distal limbs
- 3) hemihypesthesia
- 4) phantom limb pain
- 5) dissociated type of sensitivity disorder

#

93. Lesions of the occipital lobe are characterized by:

- 1) motor aphasia
- 2) sensory aphasia
- 3) astereognosis
- 4) heteronymous hemianopsia
- 5) homonymous hemianopsia

#

94. Lesions of the spinal cord do not include:

- 1) Brown-Sequard syndrome
- 2) Horner's syndrome
- 3) trophic disorders
- 4) violations of the function of pelvic organs
- 5) violation of the sensitivity in the distal extremities #

95. Lesion of the spinal cord is characterized by:

- 1) Argyle-Robertson syndrome
- 2) disorder of sensitivity on conduction type
- 3) impaired sensation in the distal extremities
- 4) disorders of swallowing
- 5) all answers are correct

#

96. During the lesion of Broca's area occur:

- 1) motor aphasia.
- 2) sensory aphasia.
- 3) amnesia.
- 4) paresthesia.
- 5) muscular rigidity.

#

97. During the lesion of Wernicke's area occurs:

- 1) motor aphasia.
- 2) sensory aphasia.
- 3) amnesia.
- 4) paresthesia.
- 5) muscular rigidity. #

98. Common cerebral symptoms include:

- 1) vomiting, nausea, headache
- 2) hemiparesis
- 3) febrile temperature, headache
- 4) rigidity of the neck muscles
- 5) Jackson's seizures # 99. Polyneuropathy is a:
  - 1) multiple symmetrical lesions of peripheral nerves
  - 2) multiple lesions of the spinal cord roots

- 3) peripheral nerve damage by two or more infectious agents
- 4) lesion of half of the spinal cord
- 5) lose the posterior horns

#

100. During polyneuropathy develops all except:

- 1) Hypo or areflexia
- 2) hyperreflexia
- 3) cranial nerve damage
- 4) sensitive disturbances
- 5) vegetative disturbances

#

101. In case of lesions of cerebellum muscle tone:

- 1) is elevated.
- 2) is reduced.
- 3) is not changed.
- 4) changed by "folding knife" type
- 5) changed the type of " cogwheel"

#

102. Hyperkinesia in the form of involuntary worm-like movements in the fingers, increases with movement and passing while sleeping is called:

- 1) chorea;
- 2) athetosis;
- 3) torsion dystonia;
- 4) ticks;
- 5) all answers are wrong .

#

103. For the Parkinsonian tremor is typical:

- 1) tremor of rest, diminishing during movement;
- 2) intention tremor, worse in motion;
- 3) tremor in the form of "account coins" and "rolling pills»; 4) true 1) and 3) ; 5) all answers are wrong. #

104. Lesion of the facial nerve results in paralysis of all these facial muscles, except:

- 1) the circular muscle of the eye;
- 2) circular muscles of the mouth;
- 3) muscles lifting the upper eyelid; 4) the buccal muscles; 5) the muscles of laughter.

#

105. Parkinson's disease may occur in the following syndromes:

- 1) choreoathetoid;
- 2) akinetic-rigid;
- 3) vestibule-cerebellar;
- 4) dentorubral;
- 5) all answers are correct.

#

106. Lesion of the abducens nerve results in paralysis of muscles

- 1) upper straight
- 2) outer straight
- 3) the bottom straight
- 4) lower oblique 5) upper oblique

#

107. Select a feature that is not characteristic of the lesion of the oculomotor nerve:

- 1) convergent strabismus;
- 2) mydriasis;
- 3) restriction of movement of the eyeball upward and medially; 4) divergent strabismus; 5) ptosis.

#

108. What symptom does not occur in the lesion of the pallido-nigral system?

- 1) no facial expression
- 2) plastic rigidity of the muscles;
- 3) spastic rigidity of the muscles; 4) bradykinesia; 5) tremor at rest.

#

109. What kind of aphasia occurs in the lesion of the frontal lobe of the dominant hemisphere?

- 1) motor aphasia
- 2) sensory aphasia;
- 3) amnesic aphasia; 4) semantic aphasia; 5) none of the above types.

#

110. The femoral nerve is formed from the roots

- 1) L3
- 2) L2-L4
- 3) L1-L2
- 4) L1-L4 5) L4-L5

#

111. Strabismus is observed in the lesion of a pair of cranial nerve:

- 1) III
- 2)
- 3) VII 4)
- 5) #

21  
29  
29

112. Ptosis occurs when the cranial nerve is affected:

- 1) IV
- 2) VI
- 3) III
- 4) V
- 5) III, VII

#

113. Muscles of mastication are innervated by cranial nerve:

- 1) VII
- 2) X
- 3) XII
- 4) V 5) III #

114. A pathological reflex defined at the upper extremity is:

- 1) Babinsky
- (2) Oppenheim
- 3) Rossolimo
- 4) Schaeffer
- 5) Gordon

#

115. The rate of active movements in the lesion of the pallido-nigral system:

- 1) slows down
- 2) accelerates
- 3) there are hyperkineses
- 4) does not change
- 5) correct 2 and 3

#

116. In the lesion of the intermediate brain occur:

- 1) sleep disorders
- 2) violation of coordination
- 3) pain
- 4) sensitivity disorders
- 5) loss of visual fields

#

117. In the lesion of the hypothalamus occur:

- 1) vegetative paroxysms
- 2) segmental vegetative disturbances
- 3) sensitive disturbances
- 4) motor disorders
- 5) sensory, motor and autonomic disorders

#

118. In the lesion of the striarpatr of the extrapyramidal system occur:

- 1) hyperkinesis
- 2) apraxia
- 3) paresis
- 4) postural tremor
- 5) rigidity

#

119. Normal hearing is considered to be the perception of a whisper from a distance of 1)

- 1 meter
- 2) 2-3 meters
- 3) 3-4 meters
- 4) 6-7 meters
- 5) 10 meters or more

#

120. The main feature of phantom pain syndrome is

- 1) hypesthesia in the stump of limb
- 2) feeling pain in the non-existent part of the removed limb
- 3) swelling, cyanosis of the stump of the limb
- 4) all of the above

- 5) none of the above #
121. The combination of increased muscle tone of the flexors of arms and extensors of legs on the one side is called pose of: 1) Kushelevkiy  
2) Romberg  
3) Wernicke-Mann  
4) Wax doll  
5) Barre test #
122. The ciliospinal center is located in the lateral horns of the spinal cord at the level of segments 1) S6-S7  
2) S7-C8  
3) C8-D1  
4) D3-D4  
5) D5-D6  
#
123. A symptom of a central lesion of the facial (VII) nerve is:  
1) paresis of the masticatory muscles on the affected side  
2) paresis of mimic muscles on the side of lesion  
3) isolated drooping of the angle of mouth on the side of lesion  
4) insulated drooping corner of the mouth on the contralateral side  
5) paresis of the muscles that raise the upper eyelid #
124. Olfactory hallucinations are observed in lesion of  
1) olfactory mound  
2) olfactory bulbs  
3) cortex of the temporal lobes  
4) the mucosa of the nasal cavity  
5) olfactory tract  
#
125. The bodies of the central motoneurons are located:  
1) in the posterior horns of the spinal cord;  
2) in the fifth layer of cortical cells;  
3) in the white matter of the brain;  
4) in the anterior horns of the spinal cord;  
5) in the internal capsule  
#
126. To identify constructive apraxia should be offered to the patient to  
1) raise his hand  
2) with the help of the right hand touch the left ear  
3) to construct the figure out of matches  
4) perform a variety of movements by imitation  
5) touch with your index finger the tip of the nose with your eyes closed #
127. A patient with visual agnosia  
1) doesn't see the surrounding objects, but learns them  
2) see the objects well, but the shape seems distorted  
3) can not see objects at the periphery of the visual field  
4) sees the objects, but not recognize them  
5) poorly sees the surrounding objects, and not recognize them #
128. The patient with motor aphasia  
1) understands the spoken language, but cannot speak  
2) does not understand the speech and can not speak  
3) can speak, but does not understand the addressed speech  
4) can speak, but it is shouted  
5) does not understand the addressed speech #
129. Syndrome of the upper orbital fissure includes lesion of  
1) III cranial nerves  
2) VI and VI cranial nerves  
3) III, IV and VI cranial nerves  
4) III, IV, VI, and 1 branch V cranial nerves  
5) II, III, IV, V and VI cranial nerves #
130. Sensitivity disorders of the conductor type, central tetraplegia are characteristic for the spinal cord lesions at the level of: 1) cervical thickening  
2) upper thoracic part  
3) upper cervical part  
4) lumbar thickening  
5) lower thoracic part  
#
131. In the lesion of the trigeminal nerve may be:  
1) disorder of swallowing  
2) paresis of facial muscles  
3) midriasis  
4) disorder of chewing  
5) the correct answer is no  
#
132. For the lesion of the nucleus of the trigeminal nerve is characteristic:  
1) paresis of facial muscles  
2) disorder of swallowing  
3) rinolaliya

- 4) disorder of the sensitivity in brackets (zones) of Zelder
- 5) all answers are correct

#

133. Pallidar system does not includ:

- 1) red nucleus
- 2) the substantia nigra
- 3) Luis's body
- 4) caudate nucleus
- 5) pale nucleus #

134. Symptoms of irritation of the visual cortex include the following symptoms, except: 1) macropsia.

- 2) micropsia.
- 3) metamorphosis. 4) amaurosis.
- 5) photopsias. #

135. The patient has convergent strabismus on the right and diplopia when looking to the right. What nerve is affected? 1) right visual.

- 2) right anducens.
- 3) right oculomotor.
- 4) right block.
- 5) right trigeminal.

#

136. Sensory ataxia occurs in lesions of 1) the anterior roots.

- 2) the posterior roots.
- 3) the side columns.
- 4) the posterior columns 5) the peripheral nerves.

#

137. For the lesion of the anterior roots of the spinal cord is characteristic:

- 1) spastic lower paraplegia.
- 2) the central tetraplegia.
- 3) peripheral paralysis.
- 4) mixed paralysis.
- 5) hemiparesis.

#

138. Pseudobulbar palsy is characterized by all except:

- 1) violent laughter and crying.
- 2) symptoms of oral automatism.
- 3) dysphagia.
- 4) high pharyngeal reflex.
- 5) disorder of breathing.

#

139. For polyneuropathy is not typical:

- 1) distal flaccid paresis
- 2) pathological foot reflexes
- 3) reduction of tendon reflexes
- 4) reduced sensitivity in the distal limbs
- 5) vegetative trophic disorders

#

140. The alternating syndromes include:

- 1) Horner's syndrome
- 2) Brown-Sequard syndrome
- 3) syndrome of the upper orbital fissure
- 4) Weber's syndrome
- 5) Argyle-Robertson syndrome #

141. Meningeal Lessage symptom is determined:

- 1) at any age
- 2) early and pre-school age
- 3) in preschool and primary school age
- 4) in infancy and early age
- 5) only in infancy

#

142. What pair of cranial nerves innervate the facial muscles

- 1) V; 2)
- VI; 3)

VII.

- 4) VIII;
- 5) X

#

143. Hyperreflexia indicates a lesion of the:

- 1) peripheral nerve
- 2) spinal cord
- 3) pyramid

pathway 4) sensitive neuron.

- 5) anterior horns of the spinal cord

#

144. Hyperkinesia do not include:

- 1) ballism
- 2) ticks
- 3) lateropulsion
- 4) athetosis
- 5) myoclonias

#

145. Peripheral lesions of the hypoglossal nerve (XII) is characterized by:

- 1) violent crying
- 2) aphasia
- 3) hemianopsia
- 4) dysphagia
- 5) atrophy of the muscles of half the tongue

#

146. The optic nerve exits the skull cavity through:

- 1) large occipital aperture
- 2) oval aperture
- 3) round aperture
- 4) the optic nerve canal
- 5) the top orbital cleft

#

147. In parkinsonism handwriting in patients

- 1) changes by type of macrography
- 2) changes by type of micrographics
- 3) does not change
- 4) patients can't write
- 5) become zigzag

#

148. Vestibular syndrome does not include:

- 1) nausea
- 2) vomiting
- 3) system dizziness
- 4) ataxia
- 5) decrease in muscle strength

#

149. For the relief of status epilepticus apply

- 1) seduxen
- 2) sodium oxybutyrate
- 3) hexenal, sodium thiopental,
- 4) all of the above
- 5) none of the above

#

150. Epileptic seizures can cause diseases other than:

- 1) subarachnoid hemorrhage
- 2) purulent meningitis
- 3) brain tumor
- 4) tuberculosis meningitis
- 5) polyneuropathy

#

151. Polyneuropathy is a:

- 1) multiple symmetrical lesion of peripheral nerves.
- 2) multiple lesions of the spinal roots.
- 3) peripheral nerve lesion two or more infectious agents.
- 4) lose half of the spinal cord.
- 5) lose the rear horns.

#

152. The main etiological factors of polyneuropathy:

- 1) toxic
- 2) infectious and allergic
- 3) dismetabolic (endocrine)
- 4) when a genetic enzyme defects
- 5) all of the above

#

153. For diabetic polyneuropathy is characteristic:

- 1) preimushestvenno lesion of the upper extremities
- 2) primary lesion of the lower extremities
- 3) primary lesion of cranial nerves
- 4) all answers are correct
- 5) no correct answers

#

154. Cancellation of antiepileptic therapy is carried out

- 1) only after full normalization of the EEG
- 2) 3 months after normalization of EEG

- 3) 6 months after clinical remission
- 4) 2 years after clinical remission with normalization of EEG
- 5) 5 years after clinical remission

#

155. The patient has a twitching of the left hand with the rapid spread on the whole hand, and then the entire left-hand half of the body. name the type of seizure.

- 1) generalized tonic
- 2) atonic
- 3) Jackson 4) absence seizure 5) myoclonic. #

156. For bulbar syndrome is characterized by:

- 1) increase of pharyngeal reflexes
- 2) violent laughter and crying
- 3) dysphagia, dysarthria, dysphonia, pharyngeal reflex reduction
- 4) the manifestation of reflexes of oral automatism
- 5) oral apraxia

#

157. To demyelinating diseases include neuropathy:

- 1) Guillain-Barre
- 2) diabetic
- 3) porphyry
- 4) hypothyroidism
- 5) all answers are correct

#

158. When polyneuropathy develops all except 1) Hypo - or areflexia.

- 2) hyperreflexia.
- 3) cranial nerves.
- 4) sensitive violations.
- 5) vegetative disorders.

#

159. For a complete traumatic rupture of the peripheral nerve are characteristic

- 1) pain in percussion in the course of the nerve below the injury site
- 2) paresthesia in the area of innervation of the damaged nerve
- 3) flaccid paralysis and anesthesia in the area of innervation of the damaged nerve 4) all of the above
- 5) no clinical manifestations #

160. In the treatment of polyradiculoneuropathy Guillain-Barre used everything except: 1)

the purpose of muscle relaxants

- 2) plasmapheresis
- 3) administration of corticosteroids
- 4) prescription of non-steroidal anti-inflammatory drugs
- 5) prescription of anticholinesterase drugs #

161. Polyneuropathy syndrome manifests itself: 1)

weakness of distal limbs;

- 2) disorder of sensation in the distal extremities;
- 3) autonomic disorders in the hands and feet;
- 4) all of the above;
- 5) all answers are wrong

#

162. Note the most characteristic signs of neuritis of the facial nerve:

- 1) sharp shooting pain;
- 2) lagophthalmos, paralysis of facial muscles;
- 3) amaurosis;
- 4) hearing loss;
- 5) analgesia half of the face.

#

163. With trigeminal neuralgia, patients complain

- 1) the constant aching pain, exciting half of the face
- 2) short paroxysms of intense pain for 1-2 minutes, provoking a light touch to the face
- 3) attacks of increasing intensity of pain in the eye, jaw, teeth, accompanied by increased tear and salivation
- 4) prolonged pain in the orbit, the angle of the eye, accompanied by a violation of visual acuity 5) all answers are correct

#

164. To acute disorders of cerebral circulation are:

- 1) cerebral vascular crisis
- 2) hemorrhagic stroke
- 3) ischemic stroke
- 4) transient disorders of cerebral circulation
- 5) all of the above

#

165. To epileptic seizures applies all, except:

- 1) Jackson the episode.
- 2) myoclonias.
- 3) generalized tonic-clonic attack.
- 4) drop-attack.

5) absence seizure.

#

166. For neuropathy of the facial nerve typically

- 1) ptosis
- 2) half face hypesthesia
- 3) paresis of mimic muscles of half the face
- 4) divergent strabismus
- 5) violation of chewing

#

167. For simple absence seizures typical:

- 1) drop the patient
- 2) clonic jerking of the limbs
- 3) fading
- 4) a loss of consciousness lasting
- 5) involuntary urination

#

168. Myoclonic seizures are:

- 1) short-term shutdown of consciousness
- 2) unilateral clonic twitching
- 3) sudden reduction of muscle tone
- 4) sudden short-term involuntary muscle contractions
- 5) generalized clonic twitches

#

169. The patient periodically had the dreamy look, this time did not respond to others, falls and seizures were not. Name the type of seizure:

- 1) generalized tonic
- 2) atonic
- 3) Jackson 4) absence seizure 5) myoclonic.

#

170. Etiological factors of idiopathic epilepsy are

- 1) gene mutation
- 2) birth injury
- 3) haemolytic disease of newborns
- 4) traumatic brain injury
- 5) violation of electrolyte balance

#

171. For the treatment of seizures is guided by principles, except:

- 1) duration
- 2) the continuity of
- 3) the continuity
- 4) discontinuity
- 5) individuality

#

172. For the treatment of generalized seizures, the drug of the first row is:

- 1) carbamazepine
- 2) valproates (depakin, convulex)
- 3) seduxen
- 4) sodium oxybutyrate
- 5) phenobarbital

#

173. The tonic phase of a generalized epileptic seizure is accompanied by:

- 1) spilled cyanosis
- 2) the jerking of the eyeballs
- 3) lasts up to 10 min
- 4) pale face
- 5) hypersalivation #

174. In liquorice: protein 2.5 g/l, cytosin 1000, lymphocytes-30%, neutrophils-70% characteristic of: 1) meningism

- 2) serous meningitis
- 3) purulent meningitis
- 4) subarachnoid hemorrhage
- 5) normal indicators #

175. In liquorice: protein 1,2 g/l, cytosin 150, lymphocytes-70%, neutrophils-30%, leucocyte erythrocytes characteristic of: 1) meningism

- 2) serous meningitis
- 3) purulent meningitis
- 4) subarachnoid hemorrhage
- 5) normal indicators

#

176. To generalized epileptic seizures include

- 1) Jackson
- 2) vegetative-visceral
- 3) somatosensory
- 4) with violation of mental functions
- 5) absence seizures

#

177. To non-epileptic seizures include all except:

- 1) febrile convulsions.
- 2) affective-respiratory attacks.
- 3) Carpo-pedal spasms.
- 4) absence seizure.
- 5) Tiki.

#

178. The pathogenesis of primary viral encephalitis is based on

- 1) vascular reaction
- 2) interaction of the virus and neuron
- 3) regional edema
- 4) circulatory hypoxia
- 5) infectious-allergic process

#

179. The pathogenesis of secondary encephalitis is based on

- 1) vascular reaction
- 2) interaction of the virus and neuron
- 3) regional edema
- 4) circulatory hypoxia
- 5) infectious-allergic process

#

180. Meningeal symptoms do not include:

- 1) a symptom of Brudzinsky.
- 2) rigidity of the occipital muscles.
- 3) lessage symptom 4) a symptom of Kernig.
- 5) a symptom of Neri.

#

181. Hemorrhage in the brain develops, as a rule:

- 1) at night during sleep
- 2) in the morning after sleep
- 3) a day in the period of active work
- 4) day in alone
- 5) does not depend on the time of day

#

182. To transient disorders of cerebral circulation are

- 1) transient ischemic attacks
- 2) subarachnoid hemorrhage
- 3) hemorrhagic stroke
- 4) minor stroke
- 5) ischemic stroke

#

183. The cause of stroke in children is

- 1) abnormal development of cerebral vessels
- 2) persistent hypertension
- 3) diseases of the blood
- 4) rheumatism
- 5) all of the above

#

184. Damage to the nervous system HIV infection manifests itself

- 1) reversible encephalopathy
- 2) acute recurrent meningitis
- 3) with myelopathy
- 4) all of the above
- 5) true 1 and 3

#

185. In the classification of craniocerebral trauma is isolated:

- 1) concussion-mild
- 2) the concussion of medium severity 3) severe concussion
- 4) diffuse axonal injury of the brain
- 5) all answers are correct

#

186. To anticonvulsant drugs do not apply:

- 1) phenobarbital
- 2) petrol
- 3) dopamine
- 4) Finlepsin
- 5) difenin

#

187. With the introduction of ghb, there is a danger:

- 1) hypertensive crisis
- 2) reduction of blood PRESSURE
- 3) respiratory depression
- 4) gastrointestinal disorders

5) heart rhythm disturbances

#

188. To epileptiform patterns include all except:

- 1) sharp waves.
- 2) spike waves.
- 3) sharp-slow wave.
- 4) politiki.
- 5) alpha waves.

#

189. He also started to turn head and eyes to the left, and then tonic strain with loss of consciousness. Name the type of seizure. 1) generalized tonic-clonic

- 2) atonic
- 3) reversible
- 4) absence seizure 5) myoclonic.

#

190. The primary purulent meningitis is called

- 1) Staphylococcus
- 2) Haemophilus influenzae,
- 3) Streptococcus and Klebsiella
- 4) meningococcus
- 5) Streptococcus pneumoniae and Pseudomonas aeruginosa

#

191. To determine the etiology of purulent meningitis pathogen isolated from:

- 1) blood and nasopharynx
- 2) of the nasopharynx
- 3) only blood
- 4) the cerebrospinal fluid
- 5) in the nasopharynx and feces #

192. In liquor: protein 1,2 g/l, cytosis 250, lymphocytes-70%, neutrophils-30% characteristic of: 1) meningism

- 2) serous meningitis
- 3) purulent meningitis
- 4) subarachnoid hemorrhage
- 5) normal indicators #

193. In CSF: protein 0.4 g/l, cytosis 10, lymphocytes 85%, neutrophils 15% off, flowing as a steady stream: 1) meningism

- 2) serous meningitis
- 3) purulent meningitis
- 4) subarachnoid hemorrhage
- 5) normal indicators

#

194. Small chorea is possible:

- 1) with tick-borne encephalitis
- 2) in case of rheumatism in children
- 3) in case of epidemic cerebrospinal meningitis
- 4) when postvaccinal encephalitis
- 5) in parkinsonism

#

195. In the treatment of chorea use:

- 1) prednisolone 2) penicillins 3) aspirin.
- 4) True 1 and 3
- 5) All answers are correct

#

196. The patient has a twitching of the left half of the face, hands and then spread to the whole body. Name the type of seizure. 1) primary generalized

- 2) secondary-generalized
- 3) atonic
- 4) reversible 5) myoclonic.

#

197. The patient has appeared regularly brief seizures with loss of consciousness and sudden fall. Name the type of seizure. 1) primary generalized

- 2) secondary-generalized
- 3) atonic
- 4) reversible 5) myoclonic.

#

198. First aid for an epileptic seizure in the prehospital setting is the following 1) put the patient on the bed.

- 2) to intubate the patient.
- 3) turn your head and torso to one side.
- 4) indirect heart massage.
- 5) artificial respiration.

#

199. Primary serous meningitis are caused by

- 1) microbes

- 2) viruses
- 3) the simplest
- 4) mushrooms
- 5) etiology unknown

#

200. Clinical symptoms of purulent meningitis include

- 1) rigidity of occipital muscles
- 2) a symptom of Kernig
- 3) symptom of Brudzinsky
- 4) none of the above
- 5) all of the above

#

201. Meningeal syndrome include all the symptoms, except:

- 1) pain.
- 2) General hyperesthesia.
- 3) a symptom of Kernig 4) Lessage symptom.
- 5) pathological reflexes.

#

202. Cerebrospinal fluid clear, colorless, pressure is 190 mm of water. article, the reaction Pandi +++, protein at 1.67 g / l, the cell count is 179 , lymphocytes 70%, Wassermann Reaction +++. What is the nature of the defeat? 1) neurobrucellosis. 2) neurosyphilis.

3) viral meningitis. 4) ischemic stroke. 5) myelitis.

#

203. Vernal encephalitis 1) has a autumn season

- 2) has autumn-winter seasonality
- 3) has a summer seasonality
- 4) has spring-summer seasonality
- 5) does not have seasonality

#

204. The presence of tetraparesis, crudely expressed in the hands, severe psychoverbal development delay characteristic form of cerebral palsy:

- 1) double hemiplegia
- 2) spastic diplegia
- 3) hemiplegic
- 4) hyperkinetic
- 5) atonic-astatic

#

205. When cerebral palsy is not isolated form:

- 1) hemiplegic
- 2) myopathic
- 3) hyperkinetic
- 4) atonic-astatic
- 5) double hemiplegic

#

206. Clonic phase of a generalized epileptic seizure:

- 1) lasts 1-5 min.
- 2) is combined with a clear consciousness of the patient
- 3) accompanied by a sharp contraction of the pupil
- 4) never accompanied by involuntary urination
- 5) accompanied by a loud scream or moan

#

207. Signs of a generalized epileptic seizure all but:

- 1) psycho-motor excitation
- 2) tonic-clonic convulsions
- 3) myosis
- 4) loss of consciousness
- 5) amnesia post-accession

#

208. To anticonvulsants include the following drugs, except:

- 1) convulex
- 2) rivotril
- 3) depakin
- 4) imovan
- 5) carbamazepine #

209. The main criteria for the abolition of antibiotics in purulent meningitis are:

- 1) temperature Normalization
- 2) Reorganization of the liquor
- 3) Normalization of blood
- 4) the Disappearance of meningeal syndrome
- 5) well-being of the patient

#

210. In what diseases is possible lymphocytic pleocytosis in CSF, in addition to: 1) serous meningitis.

- 2) abscess of the brain.
- 3) encephalitis
- 4) brucellosis meningitis.

5) tuberculosis meningitis.

#

211. The clinical picture of migraine is characterized by symptoms:

- 1) hereditary character
- 2) one-sided
- 3) pulsating pains
- 4) all answers are correct
- 5) all answers are wrong

#

212. When the hyperkinetic form of infantile cerebral paralysis:

- 1) is dominated by the TIC hyperkinesia
- 2) is dominated by tremor
- 3) is dominated by atetoz, torsion dystonia
- 4) combination of all listed species
- 5) is dominated by mioclonii #

213. The presence of low muscle tone, delayed psycho-speech development, the tremor is typical of the forms of cerebral palsy: 1) double hemiplegia

- 2) spastic diplegia
- 3) hemiplegic
- 4) hyperkinetic
- 5) atonic-astatic

#

214. For the classic neuralgia of the trigeminal nerve are characteristic 1) permanent pain syndrome

- 2) hypalgesia on the face in the field of innervation of the II and III branches of the V nerve
- 3) trigger points on the face
- 4) psychomotor excitement during the attack
- 5) all answers are correct

#

215. What signs are characteristic of hemorrhage in the brain stem: 1) convulsions.

- 2) amaurosis.
- 3) pseudobulbar syndrome.
- 4) rigidity of the occipital muscles.
- 5) violation of breathing and heart rhythm. #

216. In purulent meningitis of unknown etiology are used:

- 1) two broad-spectrum antibiotics
- 2) one antibiotic and sulfanilamidy
- 3) number of antibiotics depends on age
- 4) one antibiotic and gamma globulin
- 5) glucocorticoids

#

217. Cerebrospinal fluid clear, colorless, pressure is 260 mm of water. article, the reaction Pandi +++++, protein 3,75 g / l , cell count 200. What syndrome is this characteristic of?

- 1) cellular protein dissociation
- 2) protein-cell dissociation
- (3) norm
- 4) intracranial hypertension
- 5) hydrocephalus

#

218. The most persistent syndrome in chorea is

- 1) hyperkinesia
- (2) lack of coordination
- 3) psychomotor excitation
- 4) dysarthria
- 5) muscular hypertension #

219. Specify which of the following symptoms are characteristic of chorea clinic: 1) frequent sore throats

- 2) headaches
- 3) Gorner symptom
- 4) hyperkineses
- 5) paralysis

#

220. A migraine attack provokes:

- 1) emotional and physical stress
- 2) sleep disturbance
- 3) some products
- 4) all of the above
- 5) none of the above

#

221. In subarachnoid hemorrhage is mandatory

- 1) loss of consciousness
- 2) bloody cerebrospinal fluid
- 3) the displacement of midline echo
- 4) contralateral hemiparesis
- 5) all answers are correct

#

222. Characteristic diagnostic signs of subdural hematoma are obtained

- 1) with computed tomography
- 2) in electroencephalography
- 3) in spondylography
- 4) in rheoencephalography
- 5) when craniography

#

223. For the lesion of the posterior cerebral artery, presence is characteristic

- 1) homonymous hemianopsia
- 2) bitemporal hemianopsia
- 3) binasal hemianopsia
- 4) concentric narrowing of the fields of vision
- 5) Ambrose

#

224. The "light gap" is typical for:

- 1) subarachnoid hemorrhage
- 2) intraventricular hemorrhage
- 3) small-point parenchymal hemorrhage
- 4) epidural hematoma
- 5) intracerebral hematoma

#

225. Contraindication to surgical treatment of hydrocephalus is:

- 1) hydranencephaly
- 2) a sharp depletion
- 3) current inflammatory process
- 4) high protein content (more than 2 g/l) in liquors
- 5) all of the above

#

226. Closed cherepno-a brain trauma is: 1) fracture of skull base with liquorrhea 2) skull base fracture with bleeding

- 3) soft tissue injuries to the aponeurosis
- 4) tissue damage to the Dura mater
- 5) the correct answer is no

#

227. Traumatic brain injury is considered a penetrating, if there is:

- 1) damage to soft tissue to the aponeurosis
- 2) linear fracture of the bones of the skull vault
- 3) violation of the integrity of the Dura
- 4) all answers are correct
- 5) all answers are wrong

#

228. A concussion brain characterized by all, except

- 1) loss of consciousness
- 2) there is repeated vomiting
- 3) the hot-spot neurological symptoms
- 4) persistent focal symptoms
- 5) drowsiness in the first hours after injury

#

229. For the treatment of myasthenic crisis are used

- 1) artificial ventilation of lungs
- 2) plasmapheresis
- 3) corticosteroids
- 4) anticholinesterase
- 5) all answers are correct

#

230. For the treatment of cholinergic crisis are used:

- 1) proserin 2) atropine
- 3) potassium preparations
- 4) seduxen
- 5) all answers are correct

#

231. Classic migraine characterized by all except:

- 1) photophobia
- 2) hemicrania
- 3) nausea and vomiting 4) the heredity is not burdened 5) the frequency of occurrence.

#

232. The appearance of photopsias in the form of glowing lights, sparks, lines at the beginning of a migraine attack is evidence of the defeat: 1) retina

- 2) optic nerve
- 3) the visual tract
- 4) the optic chiasm
- 5) the bark of the occipital lobe.

#

233. Children's cerebral palsy is:

- 1) hereditary disease
- 2) chromosomal pathology
- 3) as a result of neuroinfections
- 4) the outcome of perinatal encephalopathy
- 5) subcortical degeneration

#

234. The presence of tetraparesis, crudely expressed in feet, reasonable psychoverbal development delay characteristic form of cerebral palsy:

- 1) double hemiplegia
- 2) spastic diplegia
- 3) hemiplegic
- 4) hyperkinetic
- 5) atonic-astatic

#

235. With a small stroke clinical symptoms:

- 1) save up to 6 hours
- 2) save up to 24 hours
- 3) disappear completely from 2 days to 3 weeks
- 4) disappear after 1 month
- 5) disappear after 3 months

#

236. Clinical signs of myasthenia gravis are:

- 1) Muscle atrophy
- 2) Pseudohypertrophy
- 3) Central paresis
- 4) Pathological muscle fatigue
- 5) Slow relaxation of muscles after contraction #

237. In the treatment of myasthenia gravis possible pathogenetic therapy in the form of:

- 1) nephrectomy 2) splenectomy. 3) timeouttime.
- 4) thymectomy.
- 5) appendectomy.

#

238. For brain injury is the most typical:

- 1) non-focal neurological symptoms
- 2) violation of vital functions
- 3) focal neurological symptoms
- 4) all answers are wrong
- 5) all answers are correct

#

239. To compression of the brain typically:

- 1) the presence of a light gap
- 2) prolonged comatose condition
- 3) the presence of spastic tetraparesis
- 4) fracture of the skull base
- 5) linear fracture of the cranial vault.

#

240. The causative agents of AIDS-associated infections of the nervous system are

- 1) mycobacteria tuberculosis
- 2) adenoviruses
- (3) candidates
- 4) herpes simplex viruses
- 5) all of the above

#

241. In transient ischemic attacks clinical symptoms:

- 1) save up to 6 hours
- 2) save up to 24 hours
- 3) disappear completely from 2 days to 3 weeks
- 4) disappear after 1 month
- 5) disappear after 3 months

#

242. For the diagnosis of vascular malformations of the brain used:

- 1) radiography of the skull
- 2) ultrasonic dopplerography
- 3) electroencephalography
- 4) angiography
- 5) reoentsefalografii

#

243. When brain contusion is clinically available:

- 1) short-term disturbance of consciousness
- 2) there is no violation of vital functions
- 3) there are no meningeal symptoms
- 4) focal symptoms of brain damage

5) hypothermia

#

244. When concussion mandatory method of research are:

- 1) General blood test, protein, electrolytes
- 2) computed tomography of the brain
- 3) magnetic resonance imaging
- 4) radiography of the skull
- 5) lumbar puncture

#

245. When myasthenia gravis is affected:

- 1) Central motoneuron
- 2) motor neuron of the anterior horn
- 3) peripheral nerve
- 4) the neuromuscular junction
- 5) muscles #

246. To confirm the diagnosis of myasthenia gravis it is necessary to conduct: 1)

EEG

- 2) EMG
- 3) R-graphy of the spine
- 4) Echo - EG
- 5) Proserin sample #

247. Gradual build-up of muscle weakness of a certain group of muscles during the day is typical for: 1) meningitis

- 2) myasthenia gravis
- 3) myotonia
- 4) amyotrophies
- 5) myositis

#

248. Anticholinesterase drugs include:

- 1) heparin
- 2) diacarb
- 3) proserin
- 4) aspirin
- 5) midocalm

#

249. For neuropathy I branches of the trigeminal nerve is characteristic:

- 1) reduction in corneal reflex
- 2) violation of taste on the posterior third of the tongue
- 3) hypalgesia in the inner zone a little, probably because
- 4) hypertrophy of chewing muscles
- 5) paralysis of mimic muscles

#

250. Anatomical area that is affected in myasthenia gravis:

- 1) Central motoneuron
- 2) motor neuron of the anterior horn
- 3) peripheral nerve
- 4) the neuromuscular junction
- 5) muscles

#

251. Paroxysmal pain in one half of the face, sometimes with lacrimation, mucus discharge from the nose, salivation, occur when 1) neuritis of the facial nerve

- 2) trigeminal neuralgia
- 3) neuralgia of the tongue nerve
- 4) neuralgia naso-roznichnogo site
- 5) neuralgia of the ear-temporal nerve

#

252. Increasing, persistent headaches expander character and phenomena of stagnation in the fundus typical for 1) encephalitis

- 2) meningitis
- 3) brain tumors
- 4) multiple sclerosis
- 5) all answers are correct

#

253. The development of thrombosis of cerebral arteries does not result:

- 1) decrease in blood pressure and slowing of blood flow;
- 2) the increase in viscosity and aggregation;
- 3) increase of blood coagulation activity; 4) increase of fibrinolytic activity of blood; 5) all answers are wrong.

#

254. Foster-Kennedy syndrome is characterized by

- 1) atrophy and stagnation of the disc on the tumor side
- 2) atrophy and stagnation of the disk on both sides
- 3) atrophy of the disc on the side of the tumor
- 4) atrophy of the disc on the side of the tumor and stagnation on the opposite side 5) all answers are not correct

255. Neuropathy of the sciatic nerve is characteristic:

- 1) a symptom of Wasserman;

- 2) loss of the Achilles reflex;
- 3) loss of knee reflex;
- 4) all of the above;
- 5) true 1) and 2

#

256. For neuralgia of the glossopharyngeal nerve characteristic:

- 1) attacks of shooting pains in the root of the tongue;
- 2) bouts of shooting pain in the tonsils;
- 3) the presence of trigger zones in the root of the language;
- 4) all of the above;
- 5) all answers are wrong #

257. Neurochemical changes in subcortical nuclei in Parkinson's disease are characterized by: 1) a decrease in dopamine;

- 2) a decrease in acetylcholine;
- 3) by increasing the content of norepinephrine; 4) all of the above; 5) true 1) and 3).

#

258. Hyperkinesia in the form of involuntary worm-like movements in the fingers, increases with movement and passing in a dream called: 1) chorea;

- 2) atetoz;
- 3) torsion dystonia;
- 4) Tiki;
- 5) all answers are wrong .

#

259. To defeat the roots of the ponytail is not typical:

- 1) a severe radicular pain.
- 2) peripheral paralysis of the legs.
- 3) incontinence of feces. 4) urinary incontinence.
- 5) pathological reflexes

#

260. In the defeat of the tibial nerve occurs:

- 1) "clawed" foot;
- 2) atrophy of the gastrocnemius muscle;
- 3) absence of the Achilles reflex;
- 4) when walking, the patient stands on the heels and can't get up on the toe; 5) all of the above.

#

261. To transient disorders of cerebral circulation are

- 1) transient ischemic attacks
- 2) subarachnoid hemorrhage
- 3) hemorrhagic stroke
- 4) minor stroke
- 5) ischemic stroke

#

262. Late forms of neurosyphilis occur in the form of:

- 1) brain gummas;
- 2) of tabes dorsalis;
- 3) progressive paralysis; 4) all of the above; 5) all answers are wrong.

#

263. Mental disorders in AIDS are represented by the following symptoms:

- 1) reduced memory and criticism;
- 2) disorientation and hallucinations; 3) progressive dementia; 4) all of the above;
- 5) all answers are wrong.

#

264. The most common cause of unilateral pain in the face, accompanied by severe vegetative symptoms, is 1) pterygopalatine neuralgia 2) neuralgia of the glossopharyngeal nerve

- 3) beam (cluster) headaches
- 4) trigeminal neuralgia
- 5) true 1, 3, 4

265. Diagnosis of transient disorders of cerebral circulation is established if focal symptoms are subjected to complete regression no later than: 1) 1 day;

- 2) 1 week;
- 3) 2 weeks;
- 4) 3 weeks;
- 5) 1 month

#

266. Acute tick-borne encephalitis is not typical

- 1) disease in the autumn-winter period
  - 2) meningoencephalitic syndrome
  - 3) increased intracranial pressure
  - 4) flaccid paresis and paralysis of the muscles of the shoulder girdle 5) fever at the beginning of the disease #
267. Back pain can be caused by the following organic lesions:

- 1) ankylosingspondylarthritis
- 2) metabolic bone damage
- 3) tumor metastases
- 4) tuberculosis spondylitis
- 5) all answers are correct

#

268. Parkinson's disease may occur in the following syndromes:

- 1) horeoatetoidnye;
- 2) akinetic-rigid;
- 3) vestibule-cerebellar;
- 4) Generalny;
- 5) all answers are correct.

269. Compression neuropathy of the ulnar nerve (syndrome of impairment in the elbow joint) is characteristic 1) weakness II, III fingers of brush

- 2) atrophy of the muscles of elevation of the little finger
- 3) pain on the radial surface of the brush
- 4) wing blade
- 5) all answers are not correct

#

270. For trigeminal neuralgia characterized by:

- 1) pain in the root of the tongue
- 2) trigger and trigger zones
- 3) pain in the orbit and nasal cavity on one side
- 4) atrophy of the masticatory muscles
- 5) all answers are correct

#

271. The courage of the foot down and inside, gait type "steppazh", the inability to walk on the heels, sensitive disorders on the outer surface of the Shin and the rear of the foot, mild pain syndrome observed in nerve lesions:

- (1) femoral;
- 2) fiberboard;
- 3) tibial;
- 4) the external cutaneous femoral; 5) verno1 and 2. #

272. Check the structure of the nervous system are affected in the spinal the "dryness"? 1) optic nerves and pyramids;

2) optic nerves and back posts;

3) the pyramid and the Spino-thalamic path; 4) posterior and anterior horns of the spinal cord; 5) the basal ganglia. # 273. Specify which Department of the nervous system is most often affected by polio?

- 1) subcortical nodes;
- 2) posterior horns of the spinal cord;
- 3) anterior horns of the spinal cord; 4) anterior roots of the spinal cord; 5) posterior roots of the spinal cord.

#

274. The most characteristic of the acute stage of epidemic encephalitis is the syndrome 1) ataxic

- 2) hyperkinetic
- 3) gipertoniceski-oftalmologicheskiiy
- 4) convulsive
- 5) comatose #

275. Specify studies to confirm the diagnosis of subarachnoid hemorrhage: 1)

CT;

- 2) EEG;
- 3) coagulogram;
- 4) examination of cerebrospinal fluid;
- 5) true 1) and 4)

#

276. For the classic migraine is not peculiar:

- 1) photophobia
- 2) hemicrania
- 3) nausea and vomiting
- 4) no hereditary factor
- 5) the frequency of occurrence.

#

277. To assess the effectiveness of epilepsy treatment is used:

- 1) craniography;
- 2) computed tomography;
- 3) EEG;
- 4) Echo-EG;
- 5) angiography.

278. The child has periodically had the dreamy look. During a brief "absence" did not respond to his name. Falls and cramps not was. Name the type of seizures:

- 1) generalized tonic-clonic;
- 2) absence seizure;
- 3) complex partial; 4) Jackson; 5) myoclonic.

#

279. Clinical manifestations of a tumor of the occipital lobe:

- 1) hemiparesis;

- 2) dysarthria;
- 3) anosmia;
- 4) hemianopsia; 5) sensitive ataxia.

#

280. The diagnosis of neurosyphilis is confirmed by the following methods of studying cerebrospinal fluid, with the exception of 1) Wasserman reaction with three dilutions of liquor

- 2) REEF
- 3) colloidal reaction of Takata - Ara
- 4) the reaction of immobilization pale treponemes
- 5) the correct answer is no

#

281. Serous meningitis may cause the following pathogens except

- 1) Enterovirus
- 2) the virus of lymphocytic choriomeningitis
- 3) pneumococcus
- 4) mycobacteria tuberculosis
- 5) pale Treponema

#

282. The differential diagnosis of bacterial purulent meningitis and spontaneous subarachnoid hemorrhage is based primarily on 1) the presence of meningeal syndrome

- 2) increasing pressure of cerebrospinal fluid
- 3) the nature of changes in cerebrospinal fluid
- 4) echo-encephalography
- 5) the rate of development of symptoms

#

283. A significant decrease in the level of sugar in cerebrospinal fluid is characteristic of meningitis 1) influenza

- 2) pneumococcal
- 3) mumps
- 4) tuberculosis
- 5) syphilitic

#

284. For the syndrome of perturbation of the fibula nerve in the popliteal fossa are characteristic

- 1) weakness of the plantar flexors of the foot
- 2) hypotrophy of the peroneal muscle group
- 3) hypalgesia of the inner surface of the Shin
- 4) weakness of the quadriceps thigh
- 5) true 3 and 4

#

285. For the defeat of the vagus nerve is not characteristic

- 1) dysphonia
- 2) dysphagia
- 3) heart rhythm disturbances
- 4) taste disturbance
- 5) changes in blood pressure

#

286. Clinical signs of a lesion of the peroneal nerve are

#

- 1) the paresis of the extensors of the foot
- 2) hypesthesia on the inner surface of the Shin
- 3) loss of the Achilles reflex
- 4) loss of knee reflex
- 5) true 3 and 4

#

287. For the neuropathy of the tibial nerve are characteristic: 1)

loss of the Achilles reflex

- 2) disturbance of sensitivity on the front surface of the Shin
- 3) paresis of the quadriceps of the thigh
- 4) paresis of the extensors of the foot
- 5) loss of knee reflex #

288. Where are the sympathetic neurons involved in the sympathetic innervation of the eye:

- 1) in the lateral horns of C2-C4
- 2) in the lateral horns of C4-C6 3) in the lateral horns C8-Th1
- 4) in the lateral horns of the D3-D5
- 5) in the side horns S3-S5

#

289. What are the symptoms characterized by the syndrome of brown-sequar

- 1) hemianesthesia of superficial sensitivity in opposite to the focus of the extremities, violation of sensitivity by segmental type on the side of the focus
- 2) violation of deep sensitivity and motor disorders on the side of lesion and superficial sensitivity - on the opposite side.
- 3) a violation of deep sensitivity, while maintaining a superficial, sensory ataxia.
- 4) pain and sensitivity disorders such as " socks", " gloves»
- 5) violation of deep sensitivity and motor disorders on the opposite side of the lesion # 290. The Central paresis of the muscles of the half of the

tongue occurs when affected:

- 1) the knee of the internal capsule on the affected side
- 2) rear longitudinal beam of corticonuclear path on contralateral side
- 3) medial loop
- 4) the knee of the internal capsule on the contralateral side
- 5) ways of Flexile

#

291. When tick-borne encephalitis is the most commonly affected

- 1) subcortical nodes
- 2) intermediate brain
- 3) middle brain
- 4) the cerebellum and its connections
- 5) cervical segments of the spinal cord and the nucleus of the oblong brain #

292. Argyll Robertson's syndrome is observed?

- 1) in multiple sclerosis
- 2) with parino syndrome
- 3) in neurosyphilis
- 4) in Alzheimer's disease
- 5) during alcoholism

#

293. For neuralgia of the glossopharyngeal nerve characteristic

- 1) attacks of shooting pains in the root of the tongue and tonsils
- 2) attacks of shooting pains in the ear
- 3) the presence of chicken zones on the face
- 4) violation of swallowing
- 5) dysarthria

#

294. For neuropathy of the facial nerve typically

- 1) ptosis
- 2) half face hypesthesia
- 3) paresis of mimic muscles of half the face
- 4) divergent strabismus
- 5) violation of chewing #

295. In the defeat of the trigeminal (V) nerve occurs:

- 1) prosopis
- 2) violation of the sensitivity of the skin
- 3) lacrimation
- 4) hearing loss
- 5) hyperactivity #

296. For acute focal transverse myelitis at the lower thoracic level is not characterized by the presence of 1) lower paraplegia

- 2) conduction type of infringement of sensitivity
- 3) violations of the functions of pelvic organs
- 4) flaccid paraparesis
- 5) true 2 and 3

#

297. The most common pattern of fundus in ischemic stroke: (1) norm

- 2) bleeding in the retina
- 3) retinal angiosclerosis
- 4) pallor of the temporal halves of disks of optic nerve
- 5) true 2 and 4 #

298. Tumors that occur in AIDS patients, but extremely rare in the General population: 1) lymphocytic leukemia

- 2) metastatic lymphoma
- 3) primary sarcoma
- 4) Kaposi's sarcoma
- 5) lymphosarcoma

299. Meningitis and encephalitis are absolutely contraindicated administration 1) mannitol

- 2) glycerol
- 3) sodium oxybutyrate
- 4) aktovegina
- 5) glucose solutions

#

300. Clonic phase of a generalized epileptic seizure:

- 1) lasts 1-2 min.
- 2) is combined with a clear consciousness of the patient
- 3) accompanied by a sharp contraction of the pupil
- 4) never accompanied by involuntary urination
- 5) accompanied by a loud scream or moan

#

301. For the chronic form of lethargic encephalitis Economically characteristic:

- 2) blindness;
- 3) hemiplegia;
- 4) paraplegia;
- 5) parkinsonism;
- 6) convulsive bouts.

#

302. In myasthenia gravis are affected:

- 2) the cells of the front horns;
  - 3) neuromuscular synapses;
  - 4) sensitive ganglia;
  - 5) the nucleus of cranial nerves; 6) cute ganglia. #
303. Crucial in the diagnosis of meningitis is
- 1) acute onset of disease with temperature rise
  - 2) acute onset of the disease with meningeal syndrome
  - 3) change of cerebrospinal fluid
  - 4) infectious and toxic shock syndrome
  - 5) all answers are correct
- #
304. The term "tabetic crises" in patients with spinal cord denotes
- 1) paroxysms of tachycardia
  - 2) fluctuation of blood pressure
  - 3) paroxysms of pain, tearing, shooting character
  - 4) episodes of profuse sweating and General weakness
  - 5) all of the above #
305. The sample used in conducting EEG studies to identify epiactivity:
- 1) taking nitroglycerin; 2) orthostatic test;
  - 3) photo stimulation, hyperventilation; 4) electric shock irritation; 5) physical activity. #
306. During ECHO-EG explores:
- 1) the total resistance of brain tissue to an electric current; 2) bioelectrical activity of the brain;
- #
- 3) reflected ultrasonic signal from the middle structures of the brain; 4) bioelectrical activity of the muscle tissue; 5) evoked potentials of the brain.
307. The clinical symptom of sciatica
- 1) rigidity of occipital muscles
  - 2) the symptom's symptom
  - 3) Gorner symptom
  - 4) brudzinsky symptom
  - 5) all of the above #
308. Aura is typical for
- 1) hemorrhagic stroke
  - 2) meningitis
  - 3) encephalitis
  - 4) epilepsy
  - 5) all of the above #
309. Which of the following motor symptoms is not characteristic of parkinsonism:
- 1) the phenomenon of "gears» ;
  - 2) chorea;
  - 3) propulsions;
  - 4) mask-like face; 5) a shuffling gait. #
310. Select from the following symptoms those that are not characteristic of multiple sclerosis:
- 1) repeated tonic-clonic seizures;
  - 2) multistage neurological symptoms;
  - 3) relapses of retrobulbar neuritis of optic nerves; 4) progressive dysfunction of the urinary bladder; 5) remitting course of the disease.
- #
311. The factor determining the nerve damage in diphtheria polyneuropathy is
- 1) infectious and toxic
  - 2) genetic
  - 3) vascular
  - 4) metabolic
  - 5) all of the above
- #
312. Select the symptom is not characteristic of myasthenia gravis:
- 1) weakness of diaphragm and intercostal muscles;
  - 2) dysphagia, dysphonia;
  - 3) weakness of the eye muscles; 4) muscle weakness; 5) hanging of hand and foot.
- #
313. Violation of statics and gait in spinal the "dryness" due to
- 1) flaccid paralysis of the legs
  - 2) cerebellar ataxia
  - 3) sensitive ataxia
  - 4) reduction of vision in tabid atrophy of the optic nerves
  - 5) tabetic arthropathy #
314. In the treatment of polyradiculoneuropathy Guillain-Barre used everything except: 1) muscle relaxants
- 2) plasmapheresis
  - 3) corticosteroids
  - 4) nonsteroidal anti-inflammatory drugs
  - 5) anticholinesterase drugs
- #
315. For polyneuropathy Guillain - Barre characterized by all except

- 1) lesion of cranial nerves
- 2) sensitivity disorders
- 3) persistent bilateral pyramid-shaped symptoms of Central type
- 4) ascending type of symptoms development
- 5) true 1 and 2

#

316. Atetoz is:

- 1) slow worm-shaped hyperkinesis brush
- 2) throwing hyperkinesis of the extremities
- 3) torsional torso hyperkinesis
- 4) stereotypical contraction of individual muscle groups
- 5) variety of epileptic attack

#

317. Signs of damage to the radial nerve are

- 1) "clawed brush"
- 2) inability to unravel the brush
- 3) loss of abduction of the little finger
- 4) inability to bend the brush
- 5) causalgia #

318. To confirm the diagnosis of hydrocephalus is recommended:

- 1) electromyography
- 2) magnetic resonance imaging
- 3) electroencephalography
- 4) angiography
- 5) Doppler

#

319. "Mosaicity" of peripheral paralysis occurs when:

- 1) neurobrucellosis.
- 2) neurospine.
- 3) neurosyphilis.
- 4) multiple sclerosis.
- 5) polio.

#

320. Contraindication for magnetic resonance imaging is

- 1) Allergy to iodine
- 2) open traumatic brain injury
- 3) expressed intracranial hypertension
- 4) the presence of foreign metal bodies

5) true 3 and 4

#

321. In the diagnosis of neuromuscular diseases does not matter

- 1) electrophysiological examination
- 2) biochemical studies
- 3) otoneurological examination
- 4) muscle biopsy 5) true 1 and 2 #

322. The treatment of hypertensive encephalopathy does not include the appointment:

- 1) the Central antihypertensive drugs
- 2) anticholinesterase drugs
- 3) calcium antagonists
- 4) a-adrenoblokatorov
- 5) ACE inhibitors

#

323. The most suitable treatment for herpetic encephalitis:

- 1) cyclophosphamide
- 2) amphotericin B
- 3) gamma globulin
- 4) methotrexate
- 5) acyclovir

#

324. To demyelinating diseases include neuropathy

- 1) Guillain-Barre
- 2) diabetic
- 3) porphyry
- 4) hypothyroidic 5) all right

#

325. In the pathogenesis of Parkinson's disease is degeneration: 1)

shells

- 2) the caudate nucleus
- 3) the substantianigra
- 4) cerebellum
- 5) true 3 and 4

#

326. In subarachnoid hemorrhage should not be used

- 1) analgesics
- 2) antifibrinolytics
- 3) calcium channel blockers
- 4) fibrinolytics
- 5) antihypertensive agents

#

327. Patients with trigeminal neuralgia complain

- 1) the constant aching pain, exciting half of the face
- 2) short paroxysms of intense pain provoked by a light touch to the face
- 3) attacks of increasing intensity of pain in the eye, jaw, teeth, accompanied by increased tear and salivation
- 4) prolonged pain in the orbit, the angle of the eye, accompanied by a violation of visual acuity 5) all answers are not correct #

328. Fast paced loss of consciousness, sudden breathing problems, increased blood pressure, bradycardia, purple-cyanotic color of the face, hormone more typical 1) embolic ischemic stroke

- 2) subarachnoid hemorrhage
- 3) parenchymal hemorrhage 4) brainabscess
- 5) ventricular hemorrhage

#

329. Purulent meningitis does not cause

- 1) staphylococci
- 2) meningococci
- 3) pneumococci
- 4) Koch sticks
- 5) streptococci #

330. Pentada Marburg includes all of the above, except

- 1) nystagmus
- 2) scandalous speech
- 3) hypertension of the muscles
- 4) intensive shaking

5) loss of abdominal reflexes and the decolonization of temporal halves of optic discs # 331. The pathogenesis of secondary encephalitis is based on

- 1) vascular reaction
- 2) interaction of the virus and neuron
- 3) regional edema

- 4) circulatory hypoxia
- 5) infectious-allergic process

#

332. For the comatose state is not typical

- 1) reduction of tendon reflexes
- 2) bilateral symptom of Babinsky
- 3) depression of abdominal reflexes
- 4) depression of the pupillary reactions
- 5) targeted protective responses

#

333. Cholinergic crisis is not characterized by the presence of

- 1) midriaz
- 2) hypersalivation
- 3) enhancement of intestinal motility
- 4) myofibrillary
- 5) paroxysmal enhancement of muscle weakness

#

334. In the pathogenesis of ischemic stroke plays a role

- 1) rupture of the brain vessel
- 2) occlusion of the brain vessel
- 3) changes in the composition of blood electrolytes
- 4) increased permeability of the vascular wall
- 5) all of the above

#

335. For the treatment of multiple sclerosis is advisable to appoint: 1) interferons;

- 2) corticosteroids;
- 3) plasmapheresis;
- 4) all of the above; 5) true 2) and 3). #

336. What drug is used during myasthenic crisis?

- 1) lasix
- 2) Dibazol
- 3) cordiamine
- 4) proserin
- 5) eufillin

#

337. The main feature of phantom pain syndrome is

- 1) hypesthesia in the cult of finiteness
- 2) feeling pain in the non-existent part of the removed limb
- 3) swelling, cyanosis of the stump of the limb
- 4) all of the above
- 5) true 1 and 2

#

338. Which of the signs is characteristic of ischemic stroke?

- 1) gradual ("blink") symptoms;
- 2) the prevalence of focal symptoms over the General cerebral;
- 3) reduction of blood flow through one of the arteries of the brain according to transcranialdopplerography; 4) cardiac arrhythmias.
- 5) All answers are correct #

339. Which tool is not used for the treatment of subarachnoid hemorrhage when an aneurysm?

- 1) surgical treatment;
- 2) coagulants and antifibrinolytic drugs;
- 3) etamzilat sodium (dicynone);
- 4) heparin;
- 5) Epsilon-aminocaproic acid.

#

340. Research method confirming the diagnosis of multiple sclerosis:

- 1) reaction of Lange
- 2) test a hot bath
- 3) evoked potentials
- 4) MRI in T2 mode
- 5) flashing reflex

#

341. When meningovascular syphilis observed:

- 1) cognitive impairment
- 2) acute disorders of cerebral circulation
- 3) loss of deep sensitivity
- 4) all answers are correct
- 5) all answers are incorrect #

342. Jacksonian motor seizures are observed in the localization of the pathological focus

- 1) frontal lobe
- 2) parietal lobe

- 3) the Central convolutions
- 4) gyrusGesla
- 5) temporal lobe
- #
343. When tick-borne encephalitis is the most commonly affected
  - 1) subcortical nodes
  - 2) intermediate brain
  - 3) middle brain
  - 4) the cerebellum and its connections
  - 5) cervical segments of the spinal cord and the nucleus of the oblong brain #
344. The objective symptoms of meningeal syndrome include all of the following, except:
  - 1) a symptom of Kernig;
  - 2) symptom of Babinsky;
  - 3) rigidity of occipital muscles;
  - 4) symptoms of Brudzinsky (upper, middle, lower);
  - 5) that's right all
- #
345. Pathogens of purulent meningitis can be:
  - 1) meningococcal disease;
  - 2) pneumococci;
  - 3) mycobacteria tuberculosis; 4) enteroviruses; 5) true 1) and 2).
- #
346. Criteria for diagnosis of multiple sclerosis:
  - 2) young age at onset of the disease;
  - 3) multiple-step defeat of the Central nervous system;
  - 4) remitting clinical course; 5) on MRI pockets of demyelination; 6) all of the above.
- #
347. Movement disorders in multiple sclerosis can occur the listed syndromes, in addition to:
  - 2) Jackson epilepsy;
  - 3) the Central lower paraparesis;
  - 4) the Central hemiparesis; 5) the Central tetraparesis; 6) all of the above. #
348. Compression neuropathy of the median nerve (carpal tunnel syndrome) is characteristic
  - 1) the weakness of the IV, V fingers
  - 2) "hanging down" brush
  - 3) atrophy of the muscles of elevation of the thumb
  - 4) inability to unravel the brush
  - 5) atrophy of the forearm muscles
- #
349. Clinical manifestations of myasthenia gravis are:
  - 1) expressed pain syndrome; 2) stiffness in the muscles; 3) disruption of coordination; 4) pathological muscle fatigue 5) all of the above.
- #
350. Diphtheria polyneuropathy is not characterized by the presence of:
  - 1) bulbar disorders
  - 2) pelvic disorders
  - 3) disorders of sensitivity
  - 4) violations of accommodation
  - 5) all of the above
- #
351. The main signs of subarachnoid hemorrhage are all but
  - 1) General cerebral symptoms
  - 2) protein-cell dissociation
  - 3) meningeal symptoms
  - 4) blood in the CSF
  - 5) the correct answer is no #
352. Computed tomography of the brain is contraindicated if the patient with brain damage
  - 1) diagnosed with myocardial infarction
  - 2) there are signs of defeat of a trunk
  - 3) unconscious state
  - 4) pregnancy
  - 5) there are metal dentures
- #
353. Half lesion of the spinal cord diameter (brown - Secar syndrome) is characterized by Central paralysis on the side of the hearth in combination:
  - 1) violation of all kinds of sensitivity on the opposite;
  - 2) with violation of pain and temperature sensitivity on the side of the hearth;
  - 3) violation of deep sensitivity on the side of the lesion and pain and temperature sensitivity on the opposite; 4) violation of all kinds of sensitivity on the side of the hearth; 5) the correct answers are 1 and 2.
- #
354. Cholinergic crisis is removed by the introduction of:
  - 2) midokalma
  - 3) proserina

- 4) atropine;
  - 5) adrenaline;
  - 6) of norepinephrine.
- #
355. Stages of discirculatory encephalopathy isolated on the basis of, except 1) degree of disability
- 2) changes of EEG and REG
  - 3) severity of mental disorders
  - 4) the degree of high blood pressure
  - 5) severity of neurological and mental defect #
356. Lumbar puncture is carried out between the remaining processes of the vertebrae:
- 2) L1 - L2;
  - 3) L2 - L3;
  - 4) L3 - L4;
  - 5) Th1-L1;
  - 6) all answers are correct. #
357. The most effective method of pathogenetic therapy of trigeminal neuralgia is the appointment of: 2) analgesics;
- 3) antispasmodics;
  - 4) anticonvulsants; 5) all of the above;
  - 6) none of the above.
- #
358. For instrumental diagnosis of spontaneous subarachnoid hemorrhage data are absolutely necessary 1) angiography
- 2) lumbar puncture
  - 3) ultrasonic Doppler imaging
  - 4) computed tomography
  - 5) true 1, 2, 4
- #
359. Duration of "therapeutic window" in ischemic stroke
- 1) 12 hours
  - 2) 24 hours
  - 3) 5-10 hours 4) 3-6 hours
  - 5) 2 hours #
360. According to CT of the brain, the determination of ischemic stroke is difficult: 1) the first day after stroke
- 2) a week after the stroke
  - 3) 1 month after the stroke
  - 4) 6 months after the stroke
  - 5) a year after stroke
- #
361. The cause of pathological disorders in botulism is:
- 1) muscle tissue damage
  - 2) violation of neuromuscular transmission
  - 3) demyelination
  - 4) inflammatory changes in the nerves
  - 5) all of the above
- #
362. When defending the liquor of a patient with tuberculosis meningitis through 12-24 hours can be found 1) opalescence
- 2) xanthochromia
  - 3) fibrin film
  - 4) yellow precipitation
  - 5) the cerebrospinal fluid is not changed
- #
363. In severe myasthenia gravis are affected:
- 1) cells of the anterior horns
  - 2) neuromuscular synapses
  - 3) sensitive ganglia
  - 4) parasympathetic ganglia
  - 5) good-looking
- #
364. For the clinical picture of the spinal tendon is characterized by all of the above, except 1) pain syndrome
- 2) sensitive ataxia
  - 3) pathological stopnye signs
  - 4) reduction of tendon reflexes
  - 5) all answers are correct
- #
365. Neuritis of the auditory and facial nerves, cerebellar symptoms on the side of the lesion and hemiparesis on the opposite side are observed:
- 1) if a tumor of the cerebellum;
  - 2) siringobulbia;
  - 3) with a frontal lobe tumor;
  - 4) in the tumor of the bridge-cerebellar angle; 5) with a tumor of the temporal lobe.

#

366. Select anticonvulsant drug:

- 1) valproic acid;
- 2) Cavinton;
- 3) stugeron;
- 4) prednisolone; 5) proserin.

#

367. What studies are used to diagnose myasthenia gravis:

- 1) muscle biopsy;
- 2) ECG
- 3) proteinemia test; 4) CT scan of the brain; 5) the study of the fundus.

#

368. To liquorodynamic include the following diagnostic tests, in addition to 1)

Queckenstedt

- 2) Pussep
- 3) Knock
- 4) MC Clure - Aldrich
- 5) true 3 and 4

#

369. Pathogenetic therapy of trigeminal neuralgia is an appointment 1)

analgesics

- 2) antispasmodics
- 3) anticonvulsants
- 4) neuroleptics
- 5) none of the above

#

370. Characteristic features of causalgia are

- 1) intense burning pains that do not correspond to the innervation zone of the injured nerve
- 2) hypalgesia and paresthesia in the innervation zone of the injured nerve
- 3) unbearable pain when pressure on a nerve trunk
- 4) all of the above
- 5) none of the above

#

371. Etiological factors of idiopathic epilepsy are

- 1) gene mutation
- 2) birth injury
- 3) haemolytic disease of newborns
- 4) traumatic brain injury
- 5) violation of electrolyte balance

#

372. To confirm the diagnosis of hydrocephalus is recommended:

- 1) electromyography
- 2) magnetic resonance imaging
- 3) electroencephalography
- 4) angiography
- 5) Doppler

#

373. When cerebral palsy is not isolated form:

- 1) hemiplegic
- 2) myopathic
- 3) hyperkinetic
- 4) atonic-astatic
- 5) double hemiplegic

#

374. Pathogenetic treatment of Guillain-Barre polyradiculoneuropathy:

- 1) appointment of cytostatics
- 2) plasmapheresis and corticosteroids
- 3) the appointment of vitamins
- 4) prescription of non-steroidal anti-inflammatory drugs
- 5) prescription of anticholinesterase drugs

#

375. Echo encephalography informative when the tumor

- 1) in the temporal lobe
- 2) in the posterior cranial fossa
- 3) in the brain stem
- 4) in the occipital lobe
- 5) true 3 and 4

#

376. With increasing subarachnoid space, hydrocephalus is:

- 1) internal
- 2) outdoor

(3) communicating

4) mixed

5) convexital

#

377. The primary lesion of the nervous system in AIDS manifest:

1) encephalopathy

2) with myelopathy

3) acute circulatory disorders

4) true 1 and 2

5) all answers are correct

#

378. Myasthenic crisis is not accompanied by

1) paroxysmal enhancement of muscle weakness

2) inhibition of swallowing

3) hypersalivation, bradycardia

4) violation of vital functions

5) there is no right answer #

379. The need for artificial ventilation of lungs can occur with all these neurological diseases, but 1) paroxysmal myoplegia

2) Guillain-Barre polyneuropathies

3) lateral amyotrophic sclerosis

4) myasthenia gravis

5) true 3 and 4

#

380. For the lesion of the posterior cerebral artery, presence is characteristic

1) homonymous hemianopsia

2) bitemporalhemianopsia

3) binasalhemianopsia

4) concentric narrowing of the fields of vision

5) Ambrose

#

381. In the development of insufficient blood supply to the brain in atherosclerosis play the role of all these factors, except 1) stenosis of the main vessels on the neck

2) reduction of perfusion pressure

3) reduce the elasticity of red blood cells

4) decrease of activity of the collapsing system

5) true 1 and 2

#

382. When computer tomographic diagnosis of multiple sclerosis should be borne in mind that plaques, as a rule, are not localized 1) in the periventricular white matter

2) in the subcortical white matter

3) in the bridge of the brain

4) in the cerebellum

5) true 1 and 2

#

383. Repeated subarachnoid hemorrhages occur:

1) in aneurysms of cerebral vessels

2) in liquorice

3) with rheumatic heart disease

4) When tumors of deep localization

5) in arterial hypotension

#

384. In lateral amyotrophic sclerosis affects all of these education, in addition to

1) neurons of the anterior horns of the gray matter of the spinal cord

2) neurons of the lateral horns of the gray matter of the spinal cord

3) pyramid of conductors in the lateral cords

4) nuclei of motor cranial nerves

5) neurons of the cortex anterior Central gyrus

#

385. Clinical forms of tick-borne encephalitis include all but

1) meningeal

2) polio

3) lethargic

4) polioencephalomalacia

5) febrile #

386. Encephalitis is characterized by a combination of the following symptoms, except: 1) common communicable diseases

2) neurotic

3) common rail

4) focal

5) inflammatory changes in the cerebrospinal fluid #

387. Serous meningitis may cause the following pathogens except

1) enterovirus

- 2) the virus of lymphocytic choriomeningitis
- 3) pneumococcus
- 4) mycobacteria tuberculosis
- 5) pale Treponema

#

388. Characteristic diagnostic signs of subdural hematoma are obtained

- 1) with computed tomography
- 2) in electroencephalography
- 3) in spondylography
- 4) in rheoencephalography
- 5) when craniography

#

389. For the treatment of post-traumatic headache due to intracranial hypertension, administered all but 1) the Central antihypertensive agents

- 2) osmotic diuretics
- 3) glycerin
- 4) saluretics
- 5) true 3 and 4 #

390. When neuralgia of the trigeminal nerve for cupping an attack, which drug should be chosen? 1)

Analgin

- 2) Carbamazepine
- 3) Vitamin B12
- 4) Sulfadimetoksin
- 5) Tempalgin

#

391. Reversible convulsive seizures with violent head rotation in a healthy direction occur when the tumor is localized in the next part of the brain 1) frontal

- 2) parietal
- 3) temporal
- 4) occipital
- 5) equally common in any of the listed

#

392. The following symptoms: psychomotor agitation, paralysis of accommodation, tachycardia, increased secretion of the salivary glands are a manifestation of an overdose

- 1) atropine
- 2) proserina
- 3) acetylcholine
- 4) pilocarpine
- 5) nitroglycerin

#

393. The source of infection in polio are

- 6) only the patient
- 7) the patient or a virus carrier
- 8) small rodents that infect food
- 9) cows, sheep
- 10) Pets #

394. The symptom of "wedging" during lumbar puncture in a patient with a volumetric spinal process is characterized

- 1) increased radicular pain with compression of the neck veins
- 2) reduction of neurological symptoms under pressure on the anterior abdominal wall
- 3) increased root pain when bending the head to the chest
- 4) increase in neurological symptoms after a puncture
- 5) attachment of infectious and toxic shock #

395. The primary lesion of the nervous system in AIDS manifest:

- 1) encephalopathy

- 2) with myelopathy
- 3) acute circulatory disorders
- 4) true 1 and 2
- 5) all answers are correct

#

396. A symptom of a Central lesion of the facial (VII) nerve is:

- 1) paresis of the masticatory muscles on the affected side
- 2) paresis of mimic muscles on the side of lesion
- 3) isolated omission of the angle of mouth on the side of lesion
- 4) insulated drooping corner of the mouth on the contralateral side
- 5) paresis of the muscles that raise the upper eyelid

#

397. There are the following variants of multiple sclerosis, except:

- 1) relapsing-remitting
- 2) primary progressive
- 3) secondary progressive
- 4) subacute
- 5) progressive-recurrent

#

398. What are the typical symptoms in tumors of the cerebellum:

- 1) total aphasia.
- 2) Jackson epileptic seizures.
- 3) hallucinations.
- 4) hemiparesis
- 5) static and dynamic ataxia.

#

399. Symptom of Lassegue characteristic:

- 1) lumbosacral radiculitis.
- 2) intercostal neuralgia.
- 3) cervical-brachial radiculitis.
- 4) hemorrhagic stroke.
- 5) intramedullary tumor of the spinal cord #

400. The following reasons may lead to increased intracranial pressure, except:

- 1) increasing the secretion of cerebrospinal fluid
- 2) reducing the reabsorption of cerebrospinal fluid
- 3) cerebral edema
- 4) the volume of intracranial processes
- 5) degeneration of subcortical structures

#

401. In tumors of the spinal cord for diagnosis typically:

- 1) the presence of protein-cell dissociation in the liquor
- 2) the presence of cell-protein dissociation in the cerebrospinal fluid
- 3) the symptom of foster-Kennedy
- 4) all of the above is true
- 5) all of the above is not true

#

402. With increasing subarachnoid space, hydrocephalus is:

- 1) internal
- 2) outdoor
- 3) communicating
- 4) mixed
- 5) convexital

#

403. When concussion bed rest is appointed for:

- 1) 2-3 days
- 2) 3-5 days
- 3) 5-7 days
- 4) 8-10 days
- 5) up to 3 weeks

#

404. When bruising the brain is not typical:

- 1) disturbance of consciousness long and deep
- 2) seizures
- 3) expressed focal symptoms
- 4) transient focal disorders
- 5) fractures of skull bones

#

405. When concussion of the brain is a mandatory method of research is:

- 1) General blood test, protein, electrolytes

- 2) computed tomography of the brain
  - 3) magnetic resonance imaging
  - 4) radiography of the skull
  - 5) lumbar puncture #
406. For instrumental diagnosis of spontaneous subarachnoid hemorrhage data are absolutely necessary:
- 1) angiography
  - 2) reoentsefalografii
  - 3) ultrasonic Doppler imaging
  - 4) computed tomography
  - 5) radioisotope scintigraphy
- #
407. Intracranial hypertension is characterized by headache:
- 1) spreading character
  - 2) stabbing nature in the back of the
  - 3) pulsating character throughout the head
  - 4) pulsating character on one side
  - 5) shooting character
- #
408. For brain injury is the most typical:
- 1) non-focal neurological symptoms
  - 2) violation of vital functions
  - 3) focal neurological symptoms
  - 4) all answers are wrong
  - 5) all answers are correct #
409. One of the first symptoms of organic brain damage in decompensated hydrocephalus is:
- 1) hemiparesis
  - 2) bulbar syndrome
  - 3) paraparesis of the legs
  - 4) ataxia
  - 5) tetraparesis
- #
410. For the diagnosis of vascular malformations of the brain used:
- 1) radiography of the skull
  - 2) ultrasonic dopplerography
  - 3) electroencephalography
  - 4) angiography
  - 5) reoentsefalografii
- #
411. When parenchymal neurosyphilis is observed
- 1) cognitive impairment
  - 2) acute disorders of cerebral circulation
  - 3) basal meningitis
  - 4) hydrocephalus
  - 5) all answers are correct
- #
412. With a small stroke clinical symptoms:
- 1) save up to 6 hours
  - 2) save up to 24 hours
  - 3) disappear completely from 2 days to 3 weeks
  - 4) disappear after 1 month
  - 5) disappear after 3 months
- #
413. What signs are characteristic of hemorrhage in the brain stem:
- 1) convulsions. 2) amaurosis. 3) pseudobulbar syndrome.
  - 4) rigidity of the occipital muscles.
  - 5) violation of breathing and heart rhythm.
- #
414. Ophthalmoplegic migraine is not typical:
- 1) Photopsias
  - 2) Paresis of the oculomotor nerve
  - 3) Hemianopsia
  - 4) Paresis of facial muscles
  - 5) Scotoma
- #
415. For tuberculosis meningitis is not typical:
- 1) a turbid liquor.
  - 2) subacute onset of the disease.
  - 3) lowering the sugar level in the liquor.

- 4) increase the level of sugar in the liquor.
- 5) deposition of fibrin film in the cerebrospinal fluid #
416. Traumatic brain injury is considered a penetrating, if there is:
  - 1) damage to soft tissue to the aponeurosis
  - 2) linear fracture of the bones of the skull vault
  - 3) violation of the integrity of the Dura
  - 4) all answers are correct
  - 5) all answers are wrong#
417. A concussion brain characterized by all, except
  - 1) loss of consciousness
  - 2) there is repeated vomiting
  - 3) the hot-spot neurological symptoms
  - 4) persistent focal symptoms
  - 5) drowsiness in the first hours after injury#
418. Brain injury is not typical: 1) General cerebral symptoms;
  - 2) focal neurological symptoms;
  - 3) no focal neurological symptoms;
  - 4) displacement of M-echo signal;
  - 5) the presence of blood in the cerebrospinal fluid.#
419. Determine the main cause of brain compression:
  - 1) intracranial hematomas
  - 2) closed injuries of the brain
  - 3) crack the bones of the skull
  - 4) open brain damage
  - 5) all of the above#
420. When damaged, what proportion of the brain there is a violation of sensitivity? 1) parietal
  - 2) occipital
  - 3) of the cerebellum
  - 4) frontal
  - 5) temporal #
421. In what form of fractures of the skull bones there are signs of compression of the brain?
  - 1) at an impressionable fracture
  - 2) linear fracture 3) open fracture
  - 4) closed fracture
  - 5) in all the above#
422. When and how the spinal cord develops tetraplegia and tetradentate?
  - 1) in case of cervical injury
  - 2) if the lumbar region is damaged
  - 3) if the damage of the lumbosacral 4) if the thoracic region is damaged
  - 5) in case of damage to the smoked Department#
423. What segments of the brachial plexus formed ?
  - 1) C5-C8 segments 2) C1-C6 segments

- 3) C7-C8-D5 and segments
- 4) d 5 - D 6 segments
- 5) D 7-D 12segments

#

424. What morphological changes occur at the peripheral end of the nerve after its cutting?

- 1) Wallerian rebirth
- 2) hypertrophy of nerve trunk
- 3) bleeding in the trunk of the nerve
- 4) growth of a nerve trunk
- 5) all of the above

#

425. Determine what morphological changes occur in a concussion?

- 1) small-point hemorrhage into the substance of the brain
- 2) hemorrhage into the substance of the brain
- 3) the crushing of the brain substance
- 4) destruction of the structure of the brain substance
- 5) all of the above

- #
426. Under what pathologies there is protein-cell dissociation?
- 1) in tumors of the spinal cord
  - 2) in meningoencephalomyelitis
  - 3) in case of concussion
  - 4) in case of spinal cord injury
  - 5) in case of brain injury
- #
427. If any pathology of the brain there are changes in the Turkish saddle?
- 1) in tumors of the pituitary gland
  - 2) during hydrocephalus
  - 3) for tumors of the cerebellum
  - 4) in case of concussion
  - 5) tumors of the frontal lobe
- #
428. What tumors develop from the roots of the spinal cord?
- 1) neurinomas
  - 2) angioretikulez
  - 3) astrocytomas
  - 4) meningiomas
  - 5) oligodendria
- #
429. Fractures of any bones of the skull observed liquorrhea from the nose and ears? 1) temporal and lattice 2) parietal
- 3) frontal and parietal
  - 4) palate and maxillary
  - 5) the occipital
- #
430. What is a contraindication to lumbar puncture?
- 1) cerebellar hematoma
  - 2) subarachnoid hemorrhage
  - 3) concussion of the brain
  - 4) mild brain injury
  - 5) all of the above
- #
431. Neuritis of the auditory and facial nerves, cerebellar symptoms on the side of the lesion and hemiparesis on the opposite side are observed:
- 1) if a tumor of the cerebellum
  - 2) siringobulbia
  - 3) with a frontal lobe tumor
  - 4) in the tumor of the bridge-cerebellar angle
  - 5) with a tumor of the temporal lobe
- #
432. For a complete traumatic rupture of the peripheral nerve are characteristic
- 1) pain in percussion in the course of the nerve below the injury site
  - 2) paresthesia in the area of innervation of the damaged nerve
  - 3) flaccid paralysis and anesthesia in the area of innervation of the damaged nerve
  - 4) true 1 and 2
  - 5) all of the above is true
- #
433. Development in traumatic brain injury hemiparesis shows
- 1) the concussion
  - 2) about the brain injury
  - 3) intracranial hypertension
  - 4) all answers are not correct
  - 5) true 2, 3 and 4
- #
434. Cerebral complications of an epidural hematoma are
- 1) swelling of the brain
  - 2) compression of the brain
  - 3) dislocation of the brain
  - 4) violation gematoentsefalicheskogo barrier
  - 5) all of the above
- #
435. Syndrome characteristic of multiple sclerosis:
- 1) retrobulbar neuritis
  - 2) sympathoadrenal crisis
  - 3) Kozhevnikovskaya epilepsy
  - 4) Jackson epilepsy
  - 5) true 3 and 4
- #
436. Post-traumatic stress syndrome normal pressure hydrocephalus ( Hakim-Adams) is manifested by a triad of symptoms 1) headache, memory loss, disorientation
- 2) headache, reduced vision. Ataxia
  - 3) gait disturbance, urinary incontinence, dementia
  - 4) dizziness, astasia-abasia, sensory ataxia.

5) headache, dizziness, memory loss

#

437. What sign is not characteristic of a cerebellar tumor?

- 1) static ataxia;
- 2) scandalous speech;
- 3) intention tremor;
- 4) diazoketones;
- 5) apraxia #

438. What symptom is not typical for a concussion of the brain?

- 1) loss of consciousness;
- 2) vomiting; 3) aphasia; 4) dizziness; 5) headache.

#

439. In case of brain bruises, bed rest is prescribed:

- 1) 3-5 days
- 2) 7-10 days
- 3) 10-15 days
- 4) 15-20 days
- 5) for 30 days #

440. At what kind of traumatic brain injury there is a "light" period?

- 1) subarachnoid hemorrhage;
- 2) concussion of the brain;
- 3) brain injury;
- 4) epidural hematoma;
- 5) intracerebral hemorrhage.

#

441. For the acute period of brain concussion is not typical:

- 1) nausea, vomiting
- 2) headache
- 3) dizziness
- 4) persistent loss of consciousness
- 5) vegetative-vascular disorders

#

442. The patient with hemorrhagic stroke is shown an urgent consultation:

- 1) vascular surgeon;
- 2) neurosurgeon;
- 3) cardiologist;
- 4) rehabilitation specialist; 5) therapist. #

443. With the expansion of the cerebral ventricles and subarachnoid space, hydrocephalus is: 1) internal

- 2) outdoor
- 3) communicating
- 4) mixed
- 5) convexital #

444. Intramedullary tumors of the notes (according to the law of the eccentric arrangement of nerve fibers):

- 1) root pain and paresthesia.
- 2) violation of deep sensitivity on the side tumor.
- 3) bottom-up type of violations of sensitivity on the affected side.
- 4) the downward type of sensitivity violation on the side of the lesion. 5) violation of the sensitivity on the opposite side from the tumor. #

445. Indications for surgical treatment of herniated intervertebral disc are as follows, except: 1) persistent pain syndrome.

- 2) paresis of the limbs.
- 3) dysfunction of the pelvic organs.
- 4) at the MRI diagnosed a herniated disc without clinical manifestations 5) paresis of limbs, loss of pain, temperature and deep sensitivity.

#

446. The tactics of neurosurgeon in acute subdural intracranial hematoma:

- 1) trepanation of the skull with removal of intracranial hematoma.
- 2) active dehydration therapy.
- 3) vasodilator and hormone therapy.
- 4) the dynamic monitoring of neurological status.
- 5) true 2 and 3

#

447. For intramedullary tumor characterized by:

1)

the presence of a symptom of a liquor push.

- 2) no liquor push symptom.
- 3) root pain and paresthesia.
- 4) violation of deep sensitivity on the side
- 5) true 2, 3 and 4

#

448. What research methods are shown in spinal cord injuries?

- 1) pneumoencephalography.
- 2) spondylography.
- 3) cerebral angiography.
- 4) ECHO - EG.
- 5) electromyoneurography

#

449. In a patient with compression of the jugular veins, the root pain increases and paresthesia occurs in the lower thoracic Department on the right. What's the name of this symptom?

- 1) Brudzinsky.
- (2) Neri.
- 3) Lermite.
- 4) Liquor push.
- 5) Lessage

#

450. In a patient 40 years during the year, the behavior changed - she became lethargic, indifferent to the environment, made mistakes at work, ran all the household chores. For the last 2 - 3 months was untidy, not enough control of the function of pelvic organs. What is the localization of the process in question?

- 1) parietal fraction.
- 2) the frontal lobe.
- 3) the occipital lobe.
- 4) temporal lobe.
- 5) the temporo-occipital region

#

451. Nasal and ear liquorrhea is evidence:

- 1) abscess of the brain.
- 2) fracture of the skull base.
- 3) supratentorial tumors.
- 4) lumbar disc herniation.
- 5) fracture of the vault of the skull

#

452. Pathoanatomic changes in diffuse-axonal brain damage: 1) tearing of axons

- 2) microscopic ruptures in the area of the calloused body
- 3) rupture in the area of the transition of the brain stem to the spinal cord
- 4) injury to the frontal lobe
- 5) the crushing matter of the brain

#

453. To compression, displacement and deformation of the brain are all factors except: 1) intracranial hematomas.

- 2) the center of injury.
- 3) pneumocephaly.
- 4) fractures of the skull base.
- 5) brain tumors

#

454. Unilateral deafness is found:

- 1) in tumors of the cerebellum.
- 2) in tumors of the middle brain.
- 3) in cranio-vertebral tumors.
- 4) when neurinoma of the VIII nerve.
- 5) tumors of the frontal lobe

#

455. Compression neuropathy of the ulnar nerve (syndrome of impairment in the elbow joint) is characteristic 1) weakness II, III fingers of brush

- 2) atrophy of the muscles of elevation of the little finger
- 3) pain on the radial surface of the brush
- 4) wing blade
- 5) atrophy of the muscles of elevation of the thumb

#

#

456. For the defeat of the spinal cord is characteristic:

- 1) syndrome of Argyle-Robertson
- 2) violation of sensitivity on conduction type
- 3) impaired sensation in the distal extremities
- 4) violation of swallowing
- 5) all answers are correct

457. To an open head injury refers to trauma

- 1) a bruised wound of the soft tissues without damaging the fascia
- 2) with fracture of skull bones, aponeurosis damage
- 3) with fracture of the bones of the skull vault without damage to aponeurosis
- 4) with a fracture of the skull base without liquorrhea
- 5) with fracture of skull bones

#

458. Characteristic diagnostic signs of subdural hematoma are obtained

- 1) with computed tomography
- 2) in electroencephalography
- 3) in spondylography
- 4) in rheoencephalography
- 5) when craniography

#

459. When expanding only the cerebral ventricles, hydrocephalus is:

- 1) internal
- 2) outdoor
- 3) communicating
- 4) basal
- 5) convexital #

460. What research method is most informative in the acute stage of craniocerebral trauma?

- 1) Computed tomography
- 2) EEG
- 3) angiography
- 4) fundus examination
- 5) REG

#

461. Spondylography is not informative if the spinal cord tumor is localized

- 1) intramedullary
- 2) subdural
- 3) epidural
- 4) epidural-extravertebral
- 5) true 2 and 3

#

462. Which of the paraclinical methods are important for the diagnosis of brain tumors:

- 1) electroencephalography
- 2) magnetic resonance imaging
- 3) lumbar puncture.
- 4) Echoencephaloscope
- 5) R- gram of the skull.

#

463. In tumors of the spinal cord is characteristic:

- 1) the presence of protein-cell dissociation in the liquor
- 2) the presence of cell-protein dissociation in the cerebrospinal fluid
- 3) the symptom of foster-Kennedy
- 4) all of the above is true
- 5) all of the above is not true

#

464. The most likely complication of posterior cranial fossa ependymoma:

- 1) infringement of the brain the foramen Magnum.
- 2) of an embolism emanating from the tumor.
- 3) occlusion of a vessel by tumor.
- 4) hemorrhagic necrosis of the tumor.
- 5) all of the above

#

465. Positive diagnostic signs of subarachnoid hemorrhage can be obtained:

- 1) with lumbar puncture
- 2) at angiography

3)

3) in electroencephalography

4) in rheoencephalography

5) in echo-encephalography

#

466. The main signs of subarachnoid hemorrhage are all but

1) flash start

2) common symptoms

3) protein-cell dissociation

4) meningeal symptoms

5) blood in the CSF

#

467. In occlusive hydrocephalus contraindicated:

1) bone-plastic trepanation of the skull.

2) decompression trepanation of the skull. puncture of the lateral ventricles.

4) lumbar puncture.

5) true 1 and 2

#

468. To identify pathological processes in the posterior cranial fossa, it is advisable to apply

1) computed tomography

2) a CT scan with contrast

3) magnetic resonance imaging

4) positron emission tomography

5) all methods are equally informative

#

469. Intracranial hypertension is not typical:

1) diffuse spreading headache

2) vomiting that does not bring relief

3) amaurosis

4) edema of optic discs 5) dizziness #

470. If any of the following types of traumatic brain injury not revealed blood in the cerebrospinal fluid? 1) epidural hematoma;

2) subarachnoid hemorrhage;

3) concussion of the brain; 4) subdural hematoma; 5)

bruising of the brain.

#

471. In the treatment of concussion in the acute period used:

1) antihistamines

2) hemostatic preparations

3) dehydrating agents

4) biostimulators

5) true 1 and 3

#

472. Closed cherepno-a brain trauma is: 1) fracture of skull base with liquorrhea 2) skull base fracture with bleeding

3) soft tissue injuries to the aponeurosis

4) tissue damage to the Dura mater

5) the correct answer is no

#

473. For brain injury is the most typical:

1) non-focal neurological symptoms

2) violation of vital functions

3) focal neurological symptoms

4) all answers are wrong

5) all answers are correct

#

474. To compression of the brain typically:

1) the presence of a light gap

2) prolonged comatose condition

3) the presence of spastic tetraparesis

4) fracture of the skull base

5) linear fracture of the bones of the skull vault

#

#

475. To acute disorders of cerebral circulation are:
- 1) cerebral vascular crisis
  - 2) hemorrhagic stroke
  - 3) ischemic stroke
  - 4) transient disorders of cerebral circulation
  - 5) all of the above
- #
476. Focal symptoms characteristic of thrombosis of the right middle cerebral artery:
- 1) touch aphasia
  - 2) left-sided Central hemiparesis
  - 3) swallowing disorders
  - 4) right hemihypesthesia
  - 5) vomiting
- #
477. Diffuse axonal brain injury when traumatic brain injury is characterized by
- 1) prolonged comatose state from the moment of injury
  - 2) the development of the coma after the "bright" period
  - 3) lack of loss of consciousness
  - 4) short-term loss of consciousness
  - 5) sleep disturbance
478. Etiology of intracerebral hemorrhage: 1) arterial hypotension;
- 2) occlusion of the internal carotid artery;
  - 3) aneurysm of brain vessels;
  - 4) atrial fibrillation;
  - 5) cardioembolism
- #
479. Foster-Kennedy syndrome is characterized by
- 1) atrophy and stagnation of the disc on the tumor side
  - 2) atrophy and stagnation of the disc on both sides
  - 3) atrophy of the disc on the side of the tumor
  - 4) atrophy of the disc on the side of the tumor and stagnation on the opposite side
  - 5) the stagnation of the disc with two sides
- #
480. For intramedullary spinal tumor characterized by the presence of
- 1) segmental dissociated disorders of sensation
  - 2) radicular pain of the situation
  - 3) early blockade of the subarachnoid space
  - 4) x-ray of symptom of Elsberg - dyke
  - 5) all of the above
- #
481. To apply muscle relaxants:
- 1) Mildronate.
  - 2) Mucaltin.
  - 3) Mannet.
  - 4) Midokalm.
  - 5) Melepsin.
- #
482. The diagnosis of concussion cannot be made in the presence of:
- 1) short-term loss of consciousness
  - 2) nausea, vomiting
  - 3) antegrade amnesia
  - 4) headaches
  - 5) persistent hemiparesis
- #
483. On angiography there are vascular zones in the following diseases:
- 1) hydrocephalus
  - 2) brain tumors
  - 3) intracerebral hematoma
  - 4) the concussion
  - 5) the anomaly of Arnold Chiari
- #
484. For spinal tumor epidural localization is characteristic
- 1) root syndrome
  - 2) symptom of liquor push

5)

3) the symptom of herniation 4) brudzinsky symptom

5) meningeal syndrome

#

485. Characteristic diagnostic signs of subdural hematoma are obtained

1) with computed tomography

2) in electroencephalography

3) in spondylography

4) in rheoencephalography

5) when craniography

#

486. During ECHO-EG explores:

1) the total resistance of brain tissue to an electric current;

2) bioelectrical activity of the brain;

3) reflected ultrasonic signal from the middle structures of the brain; 4) bioelectrical activity of the muscle tissue; 5) evoked potentials of the brain. #

487. The most common cause of Horner's syndrome is?

1) brain stem damage

2) lesion of the spinal cord

3) peripheral defeat of sympathetic pathways from C8-D1 segments

4) peripheral defeat of sympathetic pathways from D8-D10 segments

5) the defeat of roots of the spinal cord

#

488. With a tumor of the right hemisphere, the cerebellum of the patient is rejected when walking: 1)

in the direction of the hearth

2) in the opposite direction

3) evenly in both sides

4) is not rejected

deviates forward, backward #

489. A tumor of the pituitary gland, putting pressure on the optic chiasm, causes the development of: 1) binasalhemianopsia

2) bitemporalhemianopsia

3) the homonymous hemianopsia

4) blindness on one eye

5) all of the above is not correct

#

490. Called a penetrating head injury

1) in case of bruised soft tissue wound

2) if aponeurosis is damaged

3) at fracture of bones of a vault of a skull

4) in case of damage to the Dura mater

5) in case of soft tissue damage and fracture of skull bones #

491. When concussion of the brain does not occur:

1) expansion or contraction of the pupils

2) long-term nozle

3) transient oculomotor disorders

4) nystagmus

5) the tendon gipernatriemia

#

492. Development in traumatic brain injury hemiparesis shows

1) the concussion

2) about the brain injury

3) intracranial hypertension

4) about subarachnoid hemorrhage

5) diffuse axonal damage

#

493. Focal symptoms in epidural hematoma are

1) constriction of the pupil on side of hematoma

2) pupil dilation on opposite side

3) hemiparesis on the side of hematoma

4) pupil dilation on the hematoma side and hemiparesis on the opposite side 5) pupil dilation on side of hematoma, hemiparesis on side of hematoma

#

494. If, after a craniocerebral trauma, the rigidity of the occipital muscles and photophobia develop in the absence of focal symptoms, then the diagnosis is most likely 1) the concussion

#

- 2) subarachnoid hemorrhage
- 3) brain injury
- 4) intracranial hematoma
- 5) skull base fracture

#

495. Which lipids accumulate in the cells with the disease Niemann-pick:

- 1) Sphingolipids. 2) Zerebrolizina. 3) Gangliosides 4) LDL.

#

496. The autosomal recessive type of inheritance differs in that

- 1) the Ratio of healthy and sick family members is 1:1
- 2) the Disease is not related to blood kinship
- 3) Parents of the first revealed patient are clinically healthy
- 4) true A) and b)
- 5) True b) and C)

#

497. Trisomy of the 21 chromosome pair:

- 1) down syndrome.
- 2) syndrome Shershevskaya-Turner. 3) klinefelter syndrome 4)

Takayasu's Disease.

#

498. When shaking and shaking-rigid the form of hepatolenticular degeneration Wilson's predominant tremor 1) Rest in the hands

- 2) Intention in the hands
- 3) Clapping in hand
- 4) static-dynamic in the trunk
- 5) True C) and g)

#

499. Sibs of DM is:

- 1) All relatives of the proband
- 2) uncle of the proband
- 3) parents of proband
- 4) Brothers and sisters of the proband

500. Duplication is:

- 1) Loss of part of the chromosomes.
- 2) a copy of a segment of a chromosome.
- 3) a Doubling of part of the chromosomes 4) change the phase of the chromosome.

#

501. Indications for prenatal karyotyping of the fetus are:

- 1) the presence of phenylketonuria in one of the parents
- 2) maintenance of balanced chromosomal rearrangement in one of the parents
- 3) high level of alpha-fetoprotein in the mother's blood
- 4) the presence of diabetes in one of the parents #

502. Clinical manifestations of the disease Niemann-pick:

- 1) Cardiomegaly, amaurosis, psychosis.
- 2) Parkinsonism.
- 3) Hepatosplenomegaly, Central paralysis.
- 4) Hepatosplenomegaly, oculomotor and cerebellar disorders, catalepsy.

#

503. The programmed cell death is called:

- 1) Apoptosis
- 2) Necrosis
- 3) Degeneration
- 4) Chromatolysis 5) Mutation #

504. What is the probability of the birth of a sick child by a woman with a sick son and brother hemophilia:

- (1) 25%
- (2) 50%
- 3) 100%
- 4) is Close to 0%

#

505. The most typical location of telangiectasia syndrome, Louis -Bar:

- 1) Mucous of eyes.
- 2) the Skin of the palms.
- 3) the Skin of the feet.

7)

4) inner thigh Skin

#

506. The phenomenon of anticipation is:

1) Inheritance of the disease from his grandfather.

2) Covert manifestations of the disease.

3) Manifestation of the disease at a younger age. 4) Manifestation of the disease at a later age. # 507. Haploid kit contains cells:

1) Neurons

2) Hepatocytes

3) Zygotes

4) Gametes

5) Epithelial

#

508. The diagnosis of Duchenne muscular dystrophy is based on the:

1) is Characterized by neurological symptoms, ultrasound of internal organs

2) is Characterized by neurological symptoms, time, and nature of currents, determine the level of creatine kinase in serum

3) inspections of the ophthalmologist, neurologist, data of ultrasonic research 4) the results of histological examination

#

509. The 1960 Denver classification is based on the following chromosome parameters:

1) Size, shape, centromeric index.

2) ability to be painted with fluorescent substances.

3) the Size of the telomere and the mRNA.

4) form " X "and" Y " chromosomes.

#

510. Which of the following refers to disgrafii:

1) changes in the shape of the skull, facial asymmetry, anomalies of the chest and spine.

2) change the color of hair and eyes, depigmentation of skin (vitiligo).

3) Anomalies of the intestine, and the genitourinary system, urachus. 4) High growth, tetrada and pentadaFallo.

#

511. The penetrance is:

1) the Frequency manifestations of gene in sign.

2) Frequency of manifestations of recessive genes

3) the frequency of the manifestations of the dominant genes.

4) the Frequency of manifestations of X-linked genes. #

512. Where the Kaiser-Fleischer rings are found.

- 1) on the mucous membrane of the mouth.
- 2) in cornea eyes.
- 3) In the liver at autopsy.
- 4) on the fundus
- #
513. In the treatment of a typical form of Huntington's chorea is usually used:
  - 1) dopamine-Containing preparations
  - 2) Neuroleptics
  - 3) dopamine Agonists
  - 4) Anticholinergic drugs
  - 5) True 1) and 4)
- #
514. Characteristic brain damage in tuberous sclerosis:
  - 1) Cystic degeneration, atrophy and subatrophy of the frontal lobe crust.
  - 2) Hydrocephalus, porencephaly, pachygyria.
  - 3) Tubers the convolutions of the brain, ependyma tubers.
  - 4) Astrocytomas and neurinomas V and VIII of cranial nerves. #
515. Duchenne myopathy is associated with the mutation of the gene responsible for the synthesis of the enzyme:
  - 1) Galactokinase
  - 2) Dihydropteridine
  - 3) Dystrophin
  - 4) Ceruloplasmin
- #
516. Cordocentesis is:
  - 1) tissue Biopsy of the umbilical cord
  - 2) a Method of obtaining amniotic fluid
  - 3) a Method of obtaining chordal tissue
  - 4) method for obtaining umbilical cord blood in the fetus #
517. What accumulates in parenchymal organs in hepatocerebral dystrophy: 1) Zinc.
  - 2) Ceruloplasmin.
  - 3) Copper.
  - 4) Bilirubin. #
518. The type of inheritance of the disease Reklingauzena-neurofibromatosis I:
  - 1) Autosomal dominant 2) Autosomal recessive 3) sexLinked X chromosome.
  - 4) Coupled With y chromosome.
- #
519. A sporadic case of hereditary disease is:
  - 1) the Patient who first sought advice
  - 2) the First case of autosomal dominant or chromosomal disease in the bloodline
  - 3) the Only case of this hereditary disease in the pedigree
  - 4) All answers are correct
  - 5) there is No right answer
- #
520. Pseudohypertrophy is observed in the following forms of progressive muscular dystrophy 1) Duchenne type
  - 2) Becker-Kinner type
  - 3) type of Landouzy - Dejerine
  - 4) all of the above
- #
521. What disease belongs to spinal amyotrophies:
  - 1) Kugelberg-Velander Disease 2) Takayasu's Disease.
  - 3) Duchenne's Disease.
  - 4) Gaucher's Disease.
- #
522. The most frequent craniofacial dysmorphism in Zellweger syndrome:
  - 1) Macrognathia, tower skull, cleft palate, slanted eyes.
  - 2) prominent forehead, hypoplasia of the zygomatic arches, epiquant, wide and low nasal bridge, micrognathia .
  - 3) Prognathia, craniostenosis, skin folds on the ears.
  - 4) Traumatic leavydismorphia in this pathology not occur. #
523. Karyotype is a set of features of the chromosome set (complex) of the cell determined by:
  - 1) the number of sex chromosomes
  - 2) Form of chromosomes
  - 3) Structure of chromosomes
  - 4) All of the above
  - 5) true A) and b)
- #
524. The majority of family forms of amyotrophic lateral sclerosis are inherited by:
  - 1) Autosomal dominant type.
  - 2) Autosomal recessive type.
  - 3) Heterogeneous type.
  - 4) Coupled with X-chromosome.
- #

525. What products belong to the red list of "food traffic light" in the treatment of phenylketonuria :

- 1) red bell peppers, tomatoes, beets.
- 2) fruit salad, butter, sugar, eggplants.
- 3) Nuts, eggs, meat, fish, cottage cheese.
- 4) Milk, kefir, rice, potatoes.

#

526. In Parkinson's disease are affected:

- 1) Kernel polydamas system
- 2) star system Cores
- 3) the Internal capsule
- 4) Cerebellum
- 5) Posterior columns of the spinal cord

#

527. Neurofibromas in Recklinghausen's disease can be localized:

- 1) in the course of peripheral nerves
- 2) in the spinal canal along the roots
- 3) at the Intracranial course of the cranial nerves
- 4) on any of the specified sites

#

528. The type of inheritance in Thomson's myopathy is characterized as

- 1) autosomal dominant
- 2) autosomal recessive
- 3) sex-linked (in X chromosome)
- 4) true a) and b)
- 5) none of the above

#

529. Takamatsu disease complex affecting:

- 1) Reproductive system, exocrine glands.
- 2) Joint-muscular system, lungs, urogenital system.
- 3) Bones, muscles, blood system.
- 4) Skin, eyes, nervous system and internal organs.

#

530. Method of diagnosis of chromosomal diseases:

- 1) Mapping.
- 2) Karyotyping.
- 3) Chrome plating.
- 4) Gene modification.

#

531. Appicant is:

- 1) Fused eyebrows
- 2) wide-set eyes
- 3) Vertical skin fold at the inner corner of the eye
- 4) narrowing of the eye slit

#

532. The study of blood serum of the patient with hepatocerebral dystrophy reveals:

- 1) increase the level of ceruloplasmin and hypercupremia
- 2) lowering the level of ceruloplasmin and hypercupremia
- 3) increase of ceruloplasmin level and hypocupremia
- 4) lowering the level of ceruloplasmin and hypocupremia #

533. Clinical signs of ataxia-telangiectasia syndrome (Louis - Bar):

- 1) Paraparesis, pelvic disorders, dyskinesia of the intestine .
- 2) Vestibular ataxia, teleangiectasia, hyperkeratosis.
- 3) Sensory ataxia, teleangiectasia, hyperthyroidism.
- 4) Cerebellar ataxia, teleangiectasia, susceptibility to infections. #

534. People with Robertsonian translocations:

- 1) Phenotypically healthy
- 2) Have the phenotype of down syndrome.
- 3) Have the phenotype of Virchow syndrome.
- 4) Have the phenotype of the syndrome Transkei.

#

535. Important protective property of peroxisome is the ability:

- 1) to Neutralize toxins and free radicals. 2) to Dispose of glucose 3) to Synthesize T lifecity.
- 4) to Dispose of fallacy.

#

536. A sporadic case of hereditary disease is:

- 1) the Patient who first sought advice
- 2) the First case of autosomal dominant or chromosomal disease in the bloodline

- 3) the Only case of this hereditary disease in the pedigree
- 4) All answers are correct
- 5) there is No right answer

#

537. What form of syringomyelia is characterized by motor disorders:

- 1) Sideropulos form.
- 2) Pereprodatav form.
- 3) Vegetative-trophic form.
- 4) Pyramid-shaped.

#

538. Among the spinocerebellarataxiesFriedreich's disease is characterized by the presence of

- 1) foot Deformities
- 2) Dysraphic status
- 3) the Defeat of the heart muscle
- 4) decrease or loss of reflexes
- 5) all of the above

#

539. Common bone and joint disorders in progressive muscular dystrophy.

- 1) No, there is a loss of muscles.
- 2) Yes, as primary changes.
- 3) are Rare disorders in small joints.
- 4) Yes, as secondary changes.

#

540. Clinical signs of ataxia-telangiectasia syndrome (Louis - Bar):

- 1) Paraparesis, pelvic disorders, dyskinesia of the intestine .
- 2) Vestibular ataxia, teleangiectasia, hyperkeratosis.
- 3) Sensory ataxia, teleangiectasia, hyperthyroidism.
- 4) Cerebellar ataxia, teleangiectasia, susceptibility to infections.

#

541. For some forms of muscular dystrophies characterized by the involvement of the facial muscles: 1) Duchenne

- 2) Becker 3)  
Landouzy-Dejerine
- 4) Form -Erba.

#

542. Duchenne muscular dystrophy is inherited by the type:

- 1) Autosomal dominant;
- 2) X-linked recessive;
- 3) Autosomal recessive;
- 4) X-linked dominant

#

543. The proband is a:

- 1) the Patient who applied to the doctor
- 2) a Healthy person who applied for a medical genetic consultation
- 3) a person who has been placed under the supervision of a geneticist for the first time
- 4) the Person from whom the collection of the pedigree begins #

544. Phenotypic signs of chromosomal diseases are

- 1) Disorders of mental development
- 2) Disorders of physical development
- 3) Multiple malformations
- 4) All of the above #

545. Eliminate the wrong answer. For the hereditary disease is characterized by:

- 1) an Early manifestation of clinical manifestations,
- 2) involvement in the clinical process of many organs and systems
- 3) the Progressive nature of the disease
- 4) Acute onset of the disease

#

546. The diagnosis of Duchenne muscular dystrophy is based on the:

- 1) is Characterized by neurological symptoms, ultrasound of internal organs
- 2) is Characterized by neurological symptoms, time, and nature of currents, determine the level of kreatininfosfokinaza serum 3)  
inspections of the ophthalmologist, neurologist, data of ultrasonic research 4) the results of histological examination

#

547. Appicant is:

- 1) Fused eyebrows
- 2) wide-set eyes
- 3) Vertical skin fold at the inner corner of the eye
- 4) narrowing of the eye slit

#

548. Gait of patients with lower paraplegia strumpell's:

- 1) Duck
- 2) Stepper 3)  
Spasticities.
- 4) Antalgic .

#

549. Clinical signs of the syndrome Klinefelter:

- 1) Primary amenorrhea
- 2) Microorganism
- 3) Dolichocephaly, arachnodactyly
- 4) all of the above

#

550. The clinical manifestations of phenylketonuria is not typical:

- 1) Mental retardation
- 2) pathology of the musculoskeletal system
- 3) Eczema manifestations
- 4) Spasms
- 5) the Correct answer is 2,3 #

551. Duchenne myopathy is associated with the mutation of the gene responsible for the synthesis of the enzyme:

- 1) Galactokinase
- 2) Dihydropteridine
- 3) Dystrophin
- 4) Ceruloplasmin

#

552. Indications for chorionic villus sampling are

- 1) the Birth of a child with chromosomal abnormalities
- 2) Miscarriage of early pregnancy
- 3) Family support of chromosome rearrangements or gene mutations
- 4) All of the above

#

553. For the syndrome Shereshevsky-Turner is typical:

- 1) Primary amenorrhea
- 2) Monosomy on X chromosome
- 3) detection of symptoms from birth
- 4) Low growth
- 5) all of the above

#

554. Craniostenosis is :

- 1) Early closure of the sutures of the skull.
- 2) Narrowing the ventricular cavity of the brain.
- 3) Narrowing of the spinal canal.
- 4) Narrowing of the foramen Magnum.

#

555. Specify the probability of re-birth of a sick child in spouses with a sick girl with phenylketonuria: 1) 50%.

- 2) Close to 0%. 3) 75%.
- 4) 25%

#

556. Haploid kit contains cells:

- 1) Neurons
- 2) Hepatocytes
- 3) Zygotes
- 4) Gametes
- 5) Epithelial

#

557. Type of inheritance in Kennedy's amyotrophy: 1)

Coupled with Y-chromosome.

- 2) an autosomal dominant type. 3) Linked to X-chromosome.
- 4) autosomal recessive type

#

558. Phenylketonuria type I (classical form) due to enzyme deficiency:

- 1) Phenylalaninamide (FAM)
- 2) Fenilalanina (FA)
- 3) phenylalanine Phases (FAT)
- 4) Fenilalaningidroksilazy (GFA) #

559. The most severe form of spinal hernias:

- 1) Meningocele
- 2) Meningoradiculitis
- 3) Meningomyelocele 4) Myelocystocele.

#

560. The debut of the hyperkinetic form of the disease of Huntington.

- 1) 1-2 dozen life 2) 3 dozen life.
- 3) 4-7 dozen life.
- 4) In the first years of life.

#

561. The clinical picture is typical of Huntington's chorea, in addition to trochaic hyperkinesia includes

- 1) Plastic extrapyramidal rigidity

- 2) the Symptom of "gears"
- 3) Akinesia
- 4) Hypomimia
- 5) Dementia

#

562. Teratogenic terminal period (TTP) is :

- 1) Term of influence of teratogenic factor in the intra-Natal period.
- 2) the period of exposure to teratogenic factor after organogenesis. 3) the Period of exposure to teratogenic factors.
- 4) Term during which the teratogenic factor leads to malformation #

563. False porencephaly:

- 1) Cystic defect has the form of pores and communicated with the third ventricle.
- 2) Cystic defect formed only by the shells of the brain.
- 3) Cystic defect communicates with the ventricle and reaches the surface of the brain.
- 4) Cystic defect does not communicate with the ventricle and does not reach the surface of the brain.

#

564. Pseudopotsiala usually develops:

- 1) in the postnatal period 2) In the prenatal period
- 3) in the intra-Natal period.
- 4) in the antenatal period.

#

565. Treatment of galactosemia: 1) Medical

- 2) diet Therapy.
- 3) Substitution therapy.
- 4) Chemotherapy.

#

566. The main biochemical sign of mitochondrial pathology is:

- 1) Lactate acidosis.
- 2) Metabolic alkalosis.
- 3) Mitochondrial alkalosis.
- 4) Respiratory alkalosis.

#

567. Type of sensitive disorders in syringomyelia:

- 1) Conductor
- 2) Segmental dissociated
- 3) Polyradicular
- 4) the Sensitivity is not disturbed

#

568. Pathomorphologically true porencephaly has the form:

- 1) Ball, with localization within the frontal lobes.
- 2) the Funnel, the apex is directed deep into the brain, and the base to the surface.
- 3) Irregular shape, communicates with the subarachnoid space.
- 4) saucer-like shape, a convex part facing to the bones of the skull. #

569. The most frequent localization of angiofibroma tuberous sclerosis:

- 1) Symmetrical areas of the face.
- 2) Auditory passages.
- 3) the Axillary region.
- 4) in the course of large vascular trunks

#

570. Down's disease is characterized by a combination of the following features:

- 1) a rounded skull, Gothic palate, syndactyly, hypotonia of muscles
- 2) dolichocephalia, cleft palate, dolichostenomelia, hypertonicity of muscles
- 3) craniostenosis skull, cleft lip, presence of 6-th finger, horeoatetoz
- 4) there is a combination of any of these features

#

571. The inheritance of sex going on:

- 1) equally from the father and mother.
- 2) Only from the mother.
- 3) Only from the father.
- 4) from the father is 75% mother and 25% of the time.

#

572. Dolichocephaly is:

- 1) a Long narrow skull with prominent forehead and occiput
- 2) increase in the longitudinal size of the skull relative to the transverse
- 3) increase in the transverse size of the skull with a relative decrease in the longitudinal size 4) Expansion of the skull in occipital and contraction in the frontal part #

573. What form of syringomyelia is characterized by motor disorders:

- 1) Sideropulos forms 2) Pereprodavat form.
- 3) Vegetative-trophic form.
- 4) Pyramid-shaped.

#

574. The type of inheritance giperkalziemicescoy forms paroxysmal mioplegii:

- 1) Autosomal dominant.
- 2) sex-Linked X chromosome.
- 3) Autosomal recessive.
- 4) Coupled with Y-chromosome

#

575. A disease in which it is advisable to study sexual chromatin:

- 1) Down Syndrome
- 2) the Syndrome of "cat's cry"
- 3) Syndrome Of Klinefelter
- 4) Marfan Syndrome

#

576. Type of inheritance in Friedreich's ataxia:

- 1) autosomal recessive.
- 2) autosomal dominant.
- 3) Linked to X - chromosome.
- 4) Coupled with y - chromosome.

#

577. Inheritance OF merrf syndrome occurs: 1) on autosomal dominant inheritance 2) X- linked from the mother of only boys.

- 3) From mother to child, both boys and girls.
- 4) from mothers only girls.

#

578. What hereditary diseases are diagnosed with cytogenetic studies?

- 1) Autosomal dominant diseases
- 2) Chromosomal diseases
- 3) multi-Factorial diseases
- 4) Hereditarymetabolic diseases
- 5) X-linked diseases

#

579. The type of inheritance when amyotrophy Charcot - Marie - tooth characterized as:

- 1) Autosomal dominant
- 2) Autosomal recessive
- 3) sex-Linked (in X chromosome)
- 4) True 1) and 2)
- 5) None of the above

#

580. Pseudohypertrophy is observed in the following forms of progressive muscular dystrophy

- 1) Duchenne Type
- 2) Becker-Kinner Type
- 3) Type Of Landouzy - Dejerine
- 4) True 1) and 2)
- 5) all of the above

#

581. When microcephaly is the most affected

- 1) Subcortical kernels
- 2) the Cortex of the cerebral hemispheres
- 3) Spinal cord
- 4) Cerebellum

#

582. For Parkinson's disease is characterized by everything but:

- 1) slowness of movements, tremor
- 2) a hypotonic hyperkinetic syndrome
- 3) increases muscle tone in plastic type
- 4) tremor-type rolling pills
- 5) muscular rigidity

#

583. Clinically, microcephaly is evident

- 1) spastic paresis, mental retardation, convulsions
- 2) paresthesia, peripheral paresis in extremities
- 3) violation of the sensitivity on polyneuritic type
- 4) Horner's syndrome

#

584. Treatment of craniostenosis in children.

- 1) Physiotherapy
- 2) Chemotherapy
- 3) Medical
- 4) Surgical

#

585. The pathogenesis of Friedreich's ataxia:

- 1) Degeneration of motor nerve roots.

- 2) Degeneration of posterior and lateral columns.
  - 3) Lesions of the basal nuclei.
  - 4) Degeneration of the anterior horns of the spinal cord. #
586. That does not apply to phakomatoses:
- 1) Tuberous sclerosis.
  - 2) Ataxia-telangiectasia, Louis-Bar
  - 3) The Neurofibromatosis Recklinghausen.
  - 4) Niemann - Pick Disease
- #
587. Translocation is:
- 1) Loss of part of the chromosomes.
  - 2) the Transfer of a segment of a chromosome.
  - 3) rotate the segment of a chromosome.
  - 4) phase Change of a chromosome
- #
588. The change in the contour of the legs on the type of "tilted bottle" is due to the change in muscle mass:
- 1) When amyotrophy Charcot - Marie - tooth
  - 2) When hypertrophic neuropathy Dejerine
  - 3) under muscular dystrophy Erba
  - 4) when muscular dystrophy Becker-Kinner
- #
589. The diagnosis of neurofibromatosis is based on:
- 1) Characteristic clinical pattern and biochemical analysis;
  - 2) the Clinical picture;
  - 3) Clinical picture, studies of the hormonal profile, biochemical analysis and pathological studies.
  - 4) Anamnestically and biochemical analysis
- #
590. Phenylketonuria clinic:
- 1) Delay of psychomotor development, hypopigmentation, epileptic syndrome.
  - 2) Delay of psychomotor development, hyperpigmentation, diarrhea.
  - 3) Delay motor development, ataxia.
  - 4) Delay of motor development, areas of pigmentation, coloboma of the iris.
- #
591. If the shoulder "p" and "q" are equal, then this chromosome is called:
- 1) Acrocentric 2) Metacentric.
  - 3) Submetacentric.
  - 4) Centric.
- #
592. The duration of dietetics of the patient with phenylketonuria is:
- 1) from 2 to 6 months
  - 2) from 2 months to 1 year
  - 3) from 2 months to 3 years
  - 4) from 2 months to 5-6 years
  - 5) All my life
- #
593. Huntington's chorea affects:
- 1) the substantianigra
  - 2) the Thalamus
  - 3) Cerebellum
  - 4) Striar system
- #
594. For the syndrome Shereshevsky-Turner is not typical:
- 1) Short stature
  - 2) High growth
  - 3) Mental retardation
  - 4) Wing-shaped folds of the skin on the neck
  - 5) Correct 2 and 3
- #
595. In lateral amyotrophic sclerosis affected:
- 1) Betz Cells, motor neurons of the anterior horns of the spinal cord, motor nuclei of the brain stem.
  - 2) neurons of the posterior horns of the spinal cord 3) Axons of the toothed core.
  - 4) Skeletal muscles.
- #
596. Clinical signs - "the lips of the tapir", "transverse smile" are at:
- 1) the Progressive myodystrophy Becker. 2) the Progressive Duchennemyodystrophy 3) Progressing myodystrophyErba.
  - 4) Advancing myodystrophyLandouzy - Dejerine.
- #
597. What is affected by amyotrophic lateral sclerosis:
- 1) Degeneration of beca cells, motor neurons of anterior horns, motor nuclei of the brain stem.

- 2) Degeneration of neurons in the posterior horns of the spinal cord
- 3) the defeat of the axon of dentate nucleus
- 4) the Lack of protein called dystrophin

#

598. Clinical manifestations of MERRF syndrome.

- 1) Torn red fibers, myoclonus-epilepsy, dementia.
- 2) Myoclonus, ataxia, dementia.
- 3) Epilepsy, ataxia, lower paraplegia.
- 4) Dementia, left-sided hemiplegia, and reduced visual acuity.

#

599. The type of inheritance of the disease strumpell's:

- 1) autosomal dominant type. 2) autosomal recessive type
- 3) Heterogeneous type
- 4) Coupled with X-chromosome.

#

600. Screening test for determination of phenylketonuria in newborns: 1) Stuart Test.

- 2) Test PKU 3) Guthrie Test.
- 4) Tinnel Test.

#

601. For the pathogenesis of neurofibromatosis I is characterized by:

- 1) Defect protein fibromalagia.
- 2) Violation of the synthesis of ceruloplasmin protein.
- 3) defect of the synthesis of neurolysin.
- 4) Violation of protein synthesis of neurofibromin. #

602. The study of blood plasma of the patient with hepatocerebral dystrophy reveals:

- 1) increase the level of ceruloplasmin and hypercupremia
- 2) lowering the level of ceruloplasmin and hypercupremia
- 3) increase of ceruloplasmin level and hypocupremia
- 4) lowering the level of ceruloplasmin and hypocupremia #

603. Diagnostic criteria for neurofibromatosis:

- 1) Congenital heart disease and malformation of the radial bone and its derivatives;
- 2) Multiple pigmented skin spots, tumors of the skin, subcutaneous and in the nerve fibers, scoliosis, gliomas of the optic nerve; 3) Seborrhic adenoma on the cheeks, depigmented spots, "coffee" spots, convulsions, mental retardation; 4) Anemia, hepatosplenomegaly, tower skull, dropsy of the fetus.

#

604. Inversion is:

- 1) Loss of part of the chromosomes 2) rotation of the chromosome portion
- 3) a Doubling of part of the chromosomes.
- 4) Changing segment of a chromosome

#

605. The type of inheritance of the disease Niemann-pick:

- 1) Autosomal dominant 2) Autosomal recessive 3) sexLinked X chromosome.
- 4) Coupled With y chromosome.
- 5) heterogeneous inheritance.

#

606. Clinical manifestations of the disease strumpell's:

- 1) spastic paraparesis.
- 2) Hemiplegia, hemianesthesia. 3) Ataxia, dysarthria.
- 4) Alternating syndromes.

#

607. For Thomson myotonia characterized by all except

- 1) Muscle spasms
- 2) the Symptom of "cushion" and "pit»
- 3) Bell's Symptom
- 4) Slow motion

#

608. In Friedreich's ataxia occurs:

- 1) Degeneration of the front and side pillars.
- 2) Degeneration of posterior and lateral columns.
- 3) Lesions of the basal nuclei.
- 4) Degeneration of the anterior horns of the spinal cord. #

609. Specify the probability of re-birth of a sick child in spouses with a sick girl with phenylketonuria:

- (1) 50%; (2) 75%;
- 3) close to 0%; 4) 25%.

#

610. For the syndrome Shereshevsky-Turner is not typical stigma of dizembriogeneza: 1)

- a Short neck with wing-shaped skin folds;
- 2) Low growth; 3) Cleft upper palate;

4) Lack of gonads;

#

611. The type of inheritance of Wilson - Konovalov disease.

- 1) Autosomal dominant
- 2) Autosomal recessive
- 3) Linked with the X chromosome.
- 4) Coupled with Y-chromosome.

#

612. What is affected by Parkinson's disease:

- 1) Peripheral nerve fibers.
- 2) the Basal nuclei polydams system
- 3) the Basal nuclei of the striate system
- 4) Reticular formation

#

613. Louis-Bar syndrome is characterized by:

- 1) Colitis and pus
- 2) Sinusitis and pneumonia
- 3) Cystitis, urethritis.
- 4) Encephalitis and meningitis.

#

614. Clinical signs of syringomyelia are:

- 1) Segmental dissociated sensitivity disorders
- 2) the Presence of dysraphic features of the structure of the musculoskeletal system
- 3) Progressive muscle atrophy in the portions corresponding to the segmental loss of sensitivity
- 4) spastic paraparesis
- 5) True 1 and 2

#

615. Type of inheritance in galactosemia:

- 1) Autosomal dominant
- 2) Autosomal recessive
- 3) sexLinked X chromosome.
- 4) Coupled With y chromosome.

#

616. Biopsy of the skin of the fetus makes it possible to diagnose

- 1) Down Syndrome
- 2) Ichthyosis, epidermolysis
- 3) Hemophilia, phenylketonuria
- 4) Craniostenosis, microcephaly

#

617. Pathology, a protein detected in Duchenne muscular dystrophy, Becker.

- 1) Dystrophin
- 2) Plasmin
- 3) Ceruloplasmin.
- 4) Frataxin.

#

618. The characteristic bone and joint changes in Friedreich's ataxia:

- 1) Hollow stop, scoliosis
- 2) joint Charcot, scoliosis
- 3) "the chest of the shoemaker", flat
- 4) Kyphosis, lordosis, "chicken breast".

#

619. The contents of the hernia SAC at meningoradiculitis :

- 1) the Spinal cord, the cerebrospinal fluid, the meninges.
- 2) the Roots of the cerebrospinal fluid, the meninges.
- 3) Liquor, the shell of the brain.
- 4) the Spinal cord, the cerebrospinal fluid. #

620. Specify the indications for cytogenetic analysis:

- 1) Habitual noncarrying of pregnancy and history of stillbirth;
- 2) Hepatosplenomegaly, cataract, mental retardation;
- 3) Mental retardation, microanomalies of development or congenital malformations;
- 4) Intolerance to certain foods, hemolytic crises.
- 5) Correct 1 and 3

#

621. For disease werdnig -Hoffmann typical:

- 1) autosomal recessive type of inheritance, debut from the prenatal period, diffuse muscle weakness, rapid progression, unfavorable prognosis.
- 2) autosomal recessive type of inheritance, debut from the age of 15, paroxysmal muscle weakness, slow progression, favorable prognosis.
  - 3) autosomal dominant inheritance, and the debut of 2-3 year of life, slow progression, the prognosis is relatively favorable.
- 4) autosomal - dominant type of inheritance, the debut from 2-3 years of life, diffuse muscle weakness, rapid progression, poor prognosis.

#

622. If galactosemia is accumulated:

- 1) Ceruloplasmin
- 2) Glucose and its metabolites
- 3) Galactose and its metabolites
- 4) Fructose and its metabolites.

#

623. Monosomy for the X chromosome characteristic:

- 1) Down Syndrome.
- 2) kleinfelter syndrome
- 3) Syndrome Shershevskaya-Turner.
- 4) Takayasu's Disease.

- #
624. Characteristic clinical signs of galactosemia:
- 1) glucose Intolerance, diarrhea, dehydration.
  - 2) glucose Intolerance, delayed psychomotor development.
  - 3) milk Intolerance, constipation and urination delay.
  - 4) milk Intolerance, jaundice, psychomotor retardation, cataract.
- #
625. A characteristic feature of the lower paraparesis with strumpell's disease is:
- 1) prevalence of weakness over spasticity
  - 2) prevalence of spasticity over weakness
  - 3) the predominance of cerebellar symptoms over the pyramid
  - 4) the combination of pyramidal symptoms with atrial fibrillation muscle
  - 5) the combination of pyramidal symptoms with sensory ataxia
- #
626. What products belong to the green list of "food traffic lights" for the treatment of phenylketonuria:
- 1) red bell peppers, tomatoes, beets.
  - 2) Fruit salad, butter, sugar, eggplants.
  - 3) Nuts, eggs, meat, fish, cottage cheese.
  - 4) Milk, kefir, rice, potatoes.
- #
627. What clinical form does not apply to hepatolenticular degeneration.
- 1) Abdominal.
  - 2) Hemolytic.
  - 3) Trembling.
  - 4) Cortical-extrapyramidal.
- #
628. For gipotalamicescoy forms paroxysmal mioplegii typical:
- 1) Hyperkalemia during an attack
  - 2) Hypokalemia outside the attack
  - 3) Hyperkalemia outside attack
  - 4) Hypokalemia during an attack
- #
629. Clinically, Friedreich's ataxia is characterized by the presence:
- 1) foot Deformities
  - 2) Dysraphic status
  - 3) the Defeat of the heart muscle
  - 4) decrease or loss of reflexes
  - 5) all of the above
- #
630. The amount of protein decreases disease Wilson-Konovalov.
- 1) Ceruloplasmin.
  - 2) Albumin.
  - 3) Gamma - globulin.
  - 4) Myoglobin.
- #
631. What studies are carried out with progressive muscular dystrophy
- 1) ALT, AST, EEG
  - 2) of KFK. Electroneuromyography
  - 3) MRI, CT
  - 4) Doppler ultrasound, lipid spectrum.
- #
632. The highest concentrations of HCG are observed:
- 1) At 11-12 weeks of pregnancy.
  - 2) on 1-2 week pregnancy.
  - 3) At 20-22 weeks of pregnancy.
  - 4) in the first 10 days after conception.
- #
633. At what period of pregnancy can be carried out a biopsy of tissues of the fetus?
- 1) 1-2 months
  - 2) 2-3 months
  - 3) 4-6 months
  - 4) in any trimester #
- #
634. Degeneration of tracts which leads to disease strumpell's:
- 1) Spinohalamic.
  - 2) Corticospinal.
  - 3) Sheaves of Flexig and Hovers.
  - 4) Bundles of Gaulle and Burdach.
- #

**SITUATIONAL TASKS General neurology (7th semester)**

1. The patient effects of irritation of the posterior roots connected lumbosacral radiculitis at the level of L2-L4. Describe the neurological symptoms.
2. The disease began with atetoz in his right leg in a few months joined the violent movement in the torso, hindering walking. What are neurological syndromes and topical diagnosis.
3. There is a rebirth of Gaulte and Burdach ways in the lumbosacral section. To describe neurological symptoms.
4. In a patient with brown-sequar syndrome, caused by stab wound of the spinal cord D8 on the right.
5. In a patient after spinal cord injury developed flaccid paralysis of both legs, upset all kinds of sensitivity on conduction type and level L1 and urinary retention. To indicate a pathological lesion and the pathogenesis of neurological disorders.
6. In the patient, as a result of spinal cord injury, there was damage to the anterior, posterior, lateral horns of the left segments of C4-D1, draw a diagram, describe neurological symptoms.
7. There is a lesion of the anterior horns of the spinal cord and lateral pillars at the level of L1-L5. Describe the neurological symptoms.
8. In a patient of 50 years suffering from lateral amyotrophic sclerosis, a decrease in muscle strength with diffuse atrophy and fibrillar twitches of the muscles of the hands, shoulder girdle, legs was revealed. Tendon and periosteal reflexes on hands and feet are increased, pathological reflexes from hands and feet are caused. The nature of the paresis?
9. Syringomyelia in a patient with a segmental -dissociated type of disturbance of sensitivity in the range of C5-D3 dermatomes on the left. Draw a zone of anesthesia on the scheme and indicate the lesion focus.
10. Due to the rheumatic process, the patient is affected by striped bodies (caudate nucleus, shell) on both sides. Name a syndrome. Describe the clinical picture.
11. The patient with intramedullary process has a loss of sensitivity to segmental dissociated type on both sides, S4-D10. To describe neurological symptoms.
12. Syringomyelia in a patient with a segmental - dissociated type of disturbance of sensitivity in the range of C5-D3 dermatomes on the left. Draw a zone of anesthesia on the scheme and indicate the lesion focus.
13. The patient has atrophy of the muscles of the tongue on the right, fibrillar twitching of the muscles of the tongue on the right, deviation of the tongue to the right. Where's the lesion?
14. The patient can not close the eye on the left, when you try to close the eye, the eyeball turns upward and a white strip of sclera is visible. What cranial nerves affected, what is the symptom.
15. Damage to any formations causes the syndrome of Claude-Bernard-Horner? Describe the neurological symptoms.
16. The patient has restrictions on the movements of the right eyeball, divergent strabismus due to the

right eye, omission of the upper eyelid on the right, midriax. For hitting a nerve is typical?

17. The patient is determined by a decrease in strength in the hands, a decrease in tendon reflexes and muscle tone, fibrillar and fascicular twitching of the muscles of the shoulder girdle, the movement of the legs is not disturbed. What's the name of motor syndrome? Which entities are affected?
18. The patient developed hematomyelia as a result of trauma: as a result, there was damage to the anterior, posterior, lateral horns of C4-D4 on the left, as well as the right pyramid path. To describe the clinical picture. Draw a diagram.
19. In a patient after spinal cord injury developed flaccid paralysis of both legs, upset all kinds of sensitivity on conduction type and level L1 and urinary retention. Specify the pathological focus, pathogenesis of neurological disorders.
20. Than what the lesion to explain the patient bilateral intention tremor, bilateral diazoketones, chanting speech and the gait of a drunken man?

### **Private neurology (7-8 semester)**

1. 49-year-old man suffered encephalitis during the epidemic in 1918. for 20 years he was treated for slowly progressing parkinsonism. At neurological examination the enlarged pupils, absence of pupil reaction, paralysis of convergence, masked face, generalized rigidity, rough shaking of eyes, tongue and hands were noted. What kind of disease you can think of in this case.
2. CSF is transparent, a pressure of 250 mm of water. post, protein 0.96 g/l, cytolysis  $786 \times 10^6 / l$ , predominate lymphocytes. What diseases are characterized by such changes?
3. 62-year-old man with atrial fibrillation in history woke up with right-sided hemiplegia, blood pressure 200/110 mm Hg.art. Sensitivity retained. Speech unintelligible, to reproduce simple phrases can not. The user performs. Specify the localization and nature of the process?
4. 10-year-old girl after a lingering sore throat developed involuntary, violent movement in the distal extremities, aggravated by excitement, eating, talking, disappearing during sleep. What disease can be assumed?
5. The 14-year-old boy developed diarrhea on the background of malaise and temperature 39C, which lasted for 2 days. Then, the status has improved, the temperature decreased. But there were expressed headaches, back pain. Developed asymmetric peripheral paralysis in the legs. In the high CSF pressure, pleocytosis 250 in 1 mm. What kind of disease are we talking about?
6. Patient 15 years complained of periodic dry cough for six months, General weakness, lost 5 kg in the last 2-3 weeks was joined by headache, sweating, emotional lability. Objectively: temperature 38C, virgini photophobia, sumabog, stiff neck, positive Kernig symptom, Brudzinskogo. CSF is transparent, after the storage in the thermostat appeared fibrin film. Presumptive diagnosis?
7. A man 32 years after lifting the weight there was a strong pain in the lumbar spine. The pain increases sharply when moving in the lumbar spine. The examination revealed a pronounced tension of the back muscles, scoliosis convex to the right in the lumbar region, smoothness of the lumbar spine. Motion in

the lumbar spine is severely limited, the inclination of a trunk forward is not possible because of a sharp increase in pain. Paresis, sensitivity disorders and other neurological disorders not found. Clinical diagnosis. Additional inspection. Treatment

**8.** A woman of 70 years complains of bouts of severe pain in the right half of the face. Considers himself sick about 10 years. The pain occur suddenly, last a few seconds and are sharp, cutting character. Attacks of pain provoked by talking, chewing, touching the skin around the wing of the nose to the right. The pain begins in the upper lip area and extends to the upper teeth and right zygomatic bone. Between seizures in the neurological status, there is pain in palpation of the infrastructure point on the right, hyperesthesia in the upper jaw area on the right. Clinical diagnosis. Is it necessary to conduct additional studies . Treatment.

**9.** Girl 16 years came to the hospital with complaints of weakness in the legs and arms, numbness in the feet ("feeling foam underfoot"). She fell ill four days before admission, when he noted numbness and pain in the legs, which gradually joined in the weakness first in feet, then the hands and the facial muscles of the face. Two weeks before admission, there were signs of acute respiratory viral infection. Upon admission, there were weakness of facial muscles on the left side, weakness in the legs up to two points, in the hands up to three points, hypotension of muscles, lack of tendon reflexes from the legs and hands, positive symptoms of tension of nerve roots, reduction of all types of sensitivity in the legs by type of socks. Neurological syndrome. Localization of the lesion. Clinical diagnosis. Additional examinations and their likely results. Treatment.

**10.** Female 35 years after lifting weights I felt a sharp pain in the lumbar region radiating to the left leg at the posteroexternal surface of the femur and tibia. For the first time, lower back pain occurred 2 years ago after exercise and took place within a few days. The present aggravation for two days. When viewed: lumbar lordosis smoothed, scoliosis in the lumbar to the left, the tension of the back muscles, movements in the lumbar are sharply limited, there is pain paravertebral points. Symptom's symptom of left - 40 . Revealed the reduction of all kinds of sensitivity in the form of strips at the posteroexternal surface of the left femur, tibia and the outer edge of the foot, absence of the Achilles reflex. Neurological syndrome.

Localization of the lesion. Clinical diagnosis. Additional inspection.

Treatment.

**11.** A man 43 years, plumber, on the morning after sleep noted weakness in right-wing brush. On the eve of drinking alcohol in large quantities and fell asleep immediately at the end of the feast. On examination, marked weakness of the extensors of the hand and fingers ("hanging brush"), brachioradialis muscle, weakness of extension and abduction of the thumb, the reduction of all kinds of sensitivity in the region of the anatomic snuffbox, decreased reflexes at the triceps brachii. Neurological syndrome. The provisional clinical diagnosis. Additional examinations and their likely results. Treatment.

**12.** A man 43 years, plumber, on the morning after sleep noted weakness in right-wing brush. On the eve of drinking alcohol in large quantities and fell asleep immediately at the end of the feast. On

examination, marked weakness of the extensors of the hand and fingers ("hanging brush"), brachioradialis muscle, weakness of extension and abduction of the thumb, the reduction of all kinds of sensitivity in the region of the anatomic snuffbox, decreased reflexes at the triceps brachii. Neurological syndrome. The provisional clinical diagnosis. Additional examinations and their likely results. Treatment.

**13.** A 32-year-old woman complains of facial asymmetry, lacrimation from the left eye, pain in the ear area on the left. Sick the day before admission, the day before was on the street for a long time without a headdress at an air temperature of -5°C. The examination reveals the asymmetry of the face: left lagophthalmos, smoothed left nasolabial fold, lowered the angle of the mouth. When performing facial samples marked weakness of all facial muscles on the left side of the face, a symptom of Bell's palsy on the left. Reduced taste sensitivity on the front two thirds of the left tongue, no other neurological disorders. Neurological syndrome. Localization of the lesion. Clinical diagnosis. Treatment

**14.** A 24-year-old male programmer complains of severe pain in the thoracic spine spreading to the left side of the chest. The pain appeared two days ago on the background of long hours in front of a personal computer. The pain is worse when breathing, the rotary motion of the spine. Taking nitroglycerin did not reduce the severity of pain, ECG showed no changes. The examination reveals S-shaped scoliosis of the spine, pain of paravertebral points at the thoracic level (Th5-Th6) on the left, pain in palpation of the intercostal interval Th5-Th6 on the left, protective tension of the long back muscles at the thoracic level on the left. Paresis, sensitivity disorders and other neurological disorders no. Clinical diagnosis. Additional inspection. Treatment.

**15.** A 57-year-old woman, an accountant, complains of pain in the cervical spine spreading over the outer surface of her right hand. The pain is disturbed during the last 3 months, gradually increasing. The examination revealed tension of the neck muscles, increased kyphosis in the cervical region, limited mobility in the cervical spine due to pain. Determined by the tension and soreness of the trapezius muscle, supraspinatus muscle, the middle scalene muscle on the right. With palpation of the scalene muscle, rotating the head to the left there is pain at the outer surface of the right hand. There is hypesthesia on the medial surface of the forearms and hands and a decrease in reflex with m. biceps on the right, no other neurological disorders. Neurological syndrome. Localization of the lesion. Clinical diagnosis. Additional inspection. Treatment.

**16.** Men 50 years of age within five years, gradually developing weakness in the legs, fatigue when walking and urination disorders by type of imperative urgency. In neurological status: decrease of force in the legs up to 3 points with the increase of muscle tone by spastic type, high tendon reflexes, pathological symptoms of Babinsky and Oppenheim on both sides. In the study of the fundus reveals the decolonization of temporal halves of optic discs. Magnetic resonance imaging of the head revealed foci of increased density in T2 mode, located in the calloused body and in the spinal cord. Neurological syndrome. Localization of the lesion. Clinical diagnosis. Treatment.

**17.** A woman of 52 years complains of pain, numbness, burning, tingling sensation in the feet.

These complaints are disturbing for 4 months. Suffers from insulin-independent diabetes mellitus for 3 years, takes maninil, the level of fasting blood sugar in the range of 8-10 mmol/l. In neurological status: decrease in pain and temperature sensitivity on the type of "socks", hyperpathia in feet, no Achilles reflexes, trophic changes in the skin of both feet. Neurological syndrome. Localization of the lesion. Clinical diagnosis. Additional examinations and their likely results. Treatment.

**18.** A 32-year-old woman complains of facial asymmetry, lacrimation from the left eye, pain in the ear area on the left. Sick the day before admission, the day before was on the street for a long time without a headdress at an air temperature of -5°C. The examination reveals the asymmetry of the face: left lagophthalmos, smoothed left nasolabial fold, lowered the angle of the mouth. When performing facial samples marked weakness of all facial muscles on the left side of the face, a symptom of Bella on the left. Reduced taste sensitivity on the front two thirds of the left tongue, no other neurological disorders. Neurological syndrome. Localization of the lesion. Clinical diagnosis. Treatment.

**19.** A woman of 24 years is concerned about the embarrassment in the hands, as well as uncertainty when walking, especially in the dark. These violations occur within two weeks and gradually increase. Two years ago for a month experienced violations urination in the form of difficulties under retaining urine. In neurological status: decrease in joint and muscular sense, and vibratory sensation in the hands and feet, pomahivaya when performing planosol and palacecasino samples with closed eyes, Unsteadiness in the Romberg test and walking with his eyes closed. When the head is tilted forward, the patient feels the passage of electric current along the spine. Magnetic resonance imaging of the head in T2 mode revealed high density foci located in the spinal cord and around the ventricles of the brain. Neurological syndrome. Localization of the lesion. Clinical diagnosis. Treatment.

**20.** Boy W., 14 years old. Comes with complaints of loss of consciousness, convulsions in the left half of the face and limbs, repeated vomiting. 2 hours ago fell on train, complained on head pain, nausea, weakness. An hour after falling suddenly appeared convulsions, lost consciousness. Taken to the hospital by ambulance. In neurological status: the consciousness is so-called. Stiff neck. Eye slits D<S, right ptosis, the view does not fix. Divergent strabismus OD>OS. The right pupil dilated, reaction to light is weakened. Muscle tone increased by spastic type, S>D. Knee reflexes are high, with clonus of feet, S>D. positive reflex of Babinsky and Oppenheim on the left.

1. Where the process is localized.
2. What diagnosis can be made to the patient?

**21.** The patient 36 years. Complains of attacks of jerking of his right arm, which began 6 months ago and repeated 1 to 2 times a month. In the past week, attacks have evolved on a daily basis, three times during the attack the patient lost consciousness, it was noted tonic-clonic seizures. Worries also head pain with vomiting, photophobia. After attack, which last 2-3 minutes, there is weakness in the right hand, difficulty speech. All these phenomena regress in 2-3 hours.

Objectively: reveals a light pair of eyes to the right, smoothed the right nasolabial fold, tongue deviates

to the right. Tendon reflexes D>S, identified pathological reflexes: Rossolimo top and bottom, Babinski, Oppenheim on the right. There are no sensitive disorders. Coordinator samples are performed. Planned rigidity of the muscles of the back, a symptom of Kernig. In the fundus -stagnant phenomenon. ECHOEG - mixing M ECHO from left to right at 7 mm. MRI left frontal-lobe tumor is determined by education with clear contours, dislocarea the middle of the structure, compressing the anterior horn of the left lateral ventricle.

Questions: diagnosis, tactics.

**22.** Patient 16 years in the classroom at school and lost consciousness. There was a detailed generalized attack. Before the attack felt the smell of burnt rubber. With 10 years of age 1-2 times a year, there have been "fading" attacks, "sudden drops" that girl was amnesiacal. During the last year appeared irritability, dexterity, collusion.

Objectively: General cerebral and focal symptoms no. Epileptic seizures were reported in the aunt's maternal line. On the EEG complexes "sharp-slow wave", the increase of paroxysmal activity after hyperventilation.

Questions: diagnosis, tactics.

**23.** Sick 20 years. From the age of 10, there are attacks off consciousness for a few seconds. The patient stops at this moment, does not answer the questions asked, the skin turns pale, the eyes become motionless, but does not fall. The impression, that she in love. As soon as the attack ends, the patient continues the interrupted conversation or work. Doesn't remember the seizures. These States are repeated 3-4 times a day. In the neurological status of focal symptoms are not identified. Eye - without a pathology. On EEG "spike" of the wave.

Questions:

- 1) make a diagnosis,
- 2) prescribe treatment.

**24.** The patient is 18 years old worried about generalized convulsive seizures, starting with a feeling of rainbow rings in front of the eyes, all subjects lose their shape, after which the patient loses consciousness and falls.

Such seizures suffer from childhood, the frequency of 3-4 times a month. In the neurological status of focal neurological symptoms were not detected. The fundus of the eye without pathology. On EEG-epiactivity generalized character, more expressed in the occipital area.

Needs:

- 1) make a diagnosis,
- 2) prescribe treatment.

**25.** The doctor came a mother with a 9-year-old boy. The mother says that the boy has observed the condition when he suddenly freezes as if, look rushes at one point, on speech it does not respond. Such phenomena are often 10-15 times a day.

An objective study any changes in the status of the child is not revealed.

What is the diagnosis? What additional research methods should be carried out? What appointments do I need to make?

**26.** The patient complains of seizures beginning with twitches in the fingers of the left hand, then spreading to the entire arm and the left half of the face. Then the patient loses consciousness. Seizures are accompanied by tongue biting and urine loss.

What is the name of this kind of epileptic seizure? Where is the primary source of excitation? What additional research methods should be carried out in such a patient?

**27.** The 37-year-old man appeared involuntary twitching of the left thumb on his hand. Within 30 seconds the twitching had spread to the entire left arm and left forearm and on his face appeared violent motion. He couldn't remember what happened to him, but his wife said he fell and the twitches spread all over the left half of the body. He stayed unconscious for 3 minutes and then recovered for 15 minutes. During the attack, he bit his tongue, there was involuntary urination.

What's the patient's seizure?

Specify the location of the lesion?

What kind of examinations should be undertaken?

### **Medical genetics (8th semester)**

**1.** Make a family tree with cases of progressive Duchenne muscular dystrophy (atrophy of skeletal muscles with the rapid development and severe course). Proband - the patient myopathy boy. According to the data collected from parents history, the parents and two sisters proband healthy. On the paternal side, two uncles, aunt, grandfather and grandmother of the proband's healthy. Two cousins from uncle and aunt proband's cousin are healthy. On the mother of the proband, one of the two uncles (senior) suffered from myopathy. The second as during (a healthy) had two healthy sons and healthy daughter. Aunt of the proband had a sick son. Grandfather and grandmother are healthy. a) having Made a pedigree, mark the type of inheritance of the disease in this family.

b) Indicate the heterozygous members of a family tree.

**2.** In medical and genetic consultation in the direction of obstetrician-gynecologist asked a woman of 26 years to clarify the diagnosis of miscarriage. From obstetric anamnesis it is known that two pregnancies ended in spontaneous termination during the period of 7-8 weeks. From a family history it is known that the sister of the applicant, after one spontaneous miscarriage at the age of 7 weeks, gave birth to a premature child with multiple malformations, who died on the 2nd day of life. The genealogy of the husband who applied - without features. Objectively: the right physique, low power, no phenotypic dysmorphism; gynecological status - healthy.

What clinical data are needed to clarify the diagnosis?

1. What kind of specialized genetic testing is necessary to conduct applied?

2. Is there a need to conduct the same examination of the relatives of the applicant? If Yes, to whom; if

not, then why?

3. Tactics of management depending on the results of the survey.
  4. Forecast offspring for the applicant.
- 3) He turned to genetics the mother of a 15-year-old boy complaining of delayed sexual development of the son. From the anamnesis it is known that a child from 1 pregnancy, Express delivery. Early development without features, vaccinated according to age. Since 6 years, there have been some peculiarities in behavior (autistic traits). Currently studying in the 9th grade of secondary school, manages to 3, 4. By nature introverted, has no friends. Objectively: height - 176 cm, weight 82 kg, eunuchoid figure, deposition of fat in the "female type", high waist, gynecomastia, sparse body hair on the pubes, in the armpits, no hair on the upper lip. Voice high. Palpation is determined by some hypoplasia of the testicles. Family history without features, there is a healthy sibs 5 years.

Presumptive diagnosis.

1. What additional methods of examination can be prescribed to clarify the diagnosis?
  2. What genetic methods should be used to confirm the diagnosis?
  3. What is the prognosis for reproduction of proband?
  4. What is the risk of this pathology for the offspring of a healthy sibs?
- 4) A 16-year-old girl with complaints of sexual underdevelopment and amenorrhea was sent to the pediatric gynecologist-endocrinologist. On examination: the growth of 138 cm, a proper physique, adequate food, a broad chest, short neck, lymphoedema of the right hand, absent secondary sexual characteristics (mammary glands are not developed, lanugo hair in the armpits and on the pubis). Gynecological status: external genitals correctly formed on the female type, uterus hypoplasias, the ovaries in the form of connective-tissue strands.

Presumptive diagnosis.

1. What kind of laboratory tests should the girl do?
2. What genetic methods will confirm the diagnosis?
3. Reproductive prognosis for the proband?
4. What kinds of corrections can be recommended in this case?

5.



Рис 12-7  
Яменный туш Оалмчго с смчяромом Д\*Г\*\*

1. What pathology can be assumed from the photo?
  2. Which group of hereditary diseases it is?
  3. What are the problems with the internal organs occur most frequently in this disease?
  4. What is the diagnosis of this disease?
  5. What are the recommendations for the treatment and rehabilitation of such people?
6. The boy with 3 years of life was celebrated lag in motor development. There was weakness of the muscles of the pelvic girdle, hips, appeared "duck walk". Later joined by muscle weakness of the shoulder girdle. To 10 years, it has become difficult to move, especially difficult to climb the stairs.

When viewed: chest flattened, scoliosis of the thoracic spine, lumbar lordosis, formed "wing-shaped shoulder blades", noted weakness of the proximal arm, respiratory muscles, pseudohypertrophy of the calf muscles. Fibrillar twitchings are not available. Sensitivity retained. Signs of cardiomyopathy on ECG. Intelligence down. In serum, the content of CFC was increased many times. At EMG revealed changes characteristic of primary muscle disease.

Make a diagnosis.

What additional methods of examination should be carried out to clarify the diagnosis?

What type of disease inheritance?

7. At the patient from 16 years of age arose and weakness in muscles steadily progresses: it became difficult to rise on a ladder, to get up from a position on squat (leans against hips, "climbs on itself" or leans for the subjects standing nearby), there was "duck gait". A few years after the onset of the disease, there was an increasing weakness in the proximal arm. During the inspection pay attention to the following symptoms: difficult raising the arms above the horizontal (not hair), "wing blades" (atrophy of the anterior serratus). Because of the weakness of this mouse is a symptom of the "free shoulder". The volume of active and passive movements is limited. Low knee reflexes, reflexes with two-headed and three-headed shoulder muscles. Atrophy, localized mainly in the proximal muscle groups of the

upper and lower extremities. Due to atrophy of back muscles and abdominal wall - "frog's belly". Enhanced lumbar lordosis, there was a "wasp waist". Facial muscles do not suffer. Fibrillar and fascicular twitches are absent. As a manifestation of endocrine pathology - obesity and vegetative dystonia. When biochemical analysis of blood - moderate increase in CPK. On EMG changes characteristic of the primary lesion of the muscles.

Make a diagnosis.

What additional methods of examination should be carried out to clarify the diagnosis?

8. The patient at the age of 25 years began to experience weakness and progressive hypotrophy of the muscles of the face and shoulder girdle. On examination, marked hypomimia face ("the face of the Sphinx"), violation of the movements of the lips can fold lips, can't whistle when you laugh the mouth slit acquires a horizontal position (corners of the mouth do not rise - "transverse laughter"), eye fissure tightly closed, the forehead is not nardilet ("polished head"), lip - protruding ("lips of the tapir"). Muscles of the upper shoulder girdle are hypotrophic, tendon reflexes are reduced. Intelligence is preserved. Creatine creatininemia exchange violated moderately. On EMG signs of primary lesions of the muscles.

Make a diagnosis.

What additional methods of examination should be carried out to clarify the diagnosis?

What type of inheritance?

9. The child after 2 years after birth, appeared and progressing muscle weakness; first, movements are limited in the legs, then the torso. The weakness is symmetrical and gradually covers the muscles of the shoulder girdle, upper extremities, neck. Characteristic "frog pose" (legs divorced and rotated outwards). Due to hypotension and muscle atrophy syndrome develops "sluggish child". Marked fasciculation in the muscles of the extremities. The excursion of the respiratory muscles is reduced. Tendon and periosteal reflexes are reduced. On EMH - "the rhythm of the fence". The CPK level is normal. The fatal outcome occurred 5 years after the onset of the disease due to pneumonia due to the paresis of intercostal muscles and diaphragm.

Make a diagnosis.

What additional methods of examination should be carried out to clarify the diagnosis?

What type of inheritance?

10. The patient at the age of 35 years has a tremor of hands, and then legs, which gradually increases. When performing voluntary movements tremor is enhanced at rest decreases, until the complete absence. A few years later, hyperkinesia spread to the muscles of the face, the muscles involved in the speech act, and the speech became scanned and trembling. In addition to these symptoms, the patient has ataxia, discoordination, nystagmus, muscular dystonia, pigmentation of greenish-brown color along the outer edge of the iris (Kaiser-Fleischer ring). Laboratory studies: serum reduced the content of ceruloplasmin (below 10 UNITS, at a rate of 25-45 UNITS), hypercupremia (up

to 1,000 µg/day, at a rate of 150 mcg/day); hyperaminoacidemia (up to 1,000 mg/day, at a rate of 350 mg/day).

Changing liver samples. MRI-expansion of the ventricles of the brain and cortex atrophy.

Make a diagnosis.

What additional methods of examination should be carried out to clarify the diagnosis?

What is the pathogenesis of the disease?

Method of treatment.

11. Patient is 57 years. The first symptoms of the disease appeared at the age of 45, when there were non-rhythmic, involuntary movements in various muscle groups, which increased with excitement and disappeared in sleep. In the beginning of the disease was temporarily able to suppress these violent movements and take care of themselves. A few years after the onset of the disease, memory disorders joined, narrowed the range of interests, decreased intelligence. On examination: the patient due to hyperkinesia grimaces, gestures, widely scatter hands, walking, swinging, swings. Due to hyperkinesia speech muscles is broken it - she was slow and uneven. Muscle tone-dystonic.

Make a diagnosis.

What additional methods of examination should be carried out to clarify the diagnosis?

What type of inheritance?

### **Neurosurgery (8 semester)**

1. The patient for 6 months gradually develops weakness in the left leg. The examination revealed a pyramid paresis in the left leg, superficial sensitivity is impaired from the level of Th 4-5 on the right, articular-muscular feeling is upset to the ankle joint on the left. Determine the localization of the pathological process and clinical syndrome. For any pathological processes characterized by such a clinic?

2. The 42-year-old woman had a decrease in vision, first on the right, then on the left, the absence of menstruation in the last two years, thirst and frequent urination.

Neurological examination revealed optic nerve atrophy on the fundus, bitemporal hemianopsia, convergence weakness, pupil reaction to light decreased, on the craniogram Turkish saddle increased in size.

What topical and clinical diagnosis can be made, and justify them?

3. 58-year-old woman complained of ringing and hearing loss on the left, headaches, staggering while walking, for 6 months walking with difficulty. The symptoms are progressive in nature. Sick for 5 years. Neurological examination revealed nystagmus at a glance to the left, lack of corneal reflex to the left, hypesthesia of the face to the left, decreased pharyngeal reflex to the left, walks with legs wide apart, in the pose of Romberg falls to the left, cerebellar samples performs worse left limbs. Mild pyramid failure on the right. In the fundus blurred the boundaries of the optic nerve papilla. In lumbar cerebrospinal fluid protein - cell dissociation.

What topical and clinical diagnosis can be made to this patient?

4. The patient 47 years old was admitted with complaints of staggering when walking. From the anamnesis it is known that 8 months ago was gradually reduced hearing in my left ear, then twisted to the right, and numb left cheek, headaches, nausea, dizziness. When viewed by a neurologist: hearing impairment on the left by the type of sound receiving device, peripheral paresis of the left facial nerve, hypesthesia of the left half of the face, muscle hypotension ataxia in the left extremities.

What methods of examination should be carried out to clarify the diagnosis?

What is Your presumptive diagnosis?

In what diseases may develop hypertensive syndrome?

5. Boy W., 14 years old. Comes with complaints of loss of consciousness, convulsions in the left half of the face and limbs, repeated vomiting. 2 hours ago fell on train, complained on head pain, nausea, weakness. An hour after falling suddenly appeared convulsions, lost consciousness. Taken to the hospital by ambulance.

In neurological status: the consciousness is so-called. Stiff neck. Eye slits D<S, right ptosis, the view does not fix. Divergent strabismus OD>OS. The right pupil dilated, reaction to light is weakened. Increased muscle tone of spastic type, S>D. Patellar reflexes high, with lonesome stop, S>D. Positive Babinski sign and Oppenheim on the left.

1. Where the process is localized.
2. What diagnosis can be made to the patient?

### **THEMES of REPORTS AND PRESENTATIONS (7-8 semester)**

1. Modern approaches to the treatment of ischemic stroke.
2. Modern approaches to the treatment of hemorrhagic stroke.
3. Principles of appointment of glucocorticoids in neurological practice.
4. The practice of appointing of immunoglobulins in neurology.
5. Tactics for the appointment of anticonvulsants.
6. The practice of appointing anticholinesterase drugs.
7. Current opportunities of neuroimaging.
8. Endovascular methods of treatment in neurosurgical practice.
9. EEG-video monitoring, diagnostic value.
10. The concept of population genetics in the BLOOD.
11. Tactics of antihypertensive therapy in cerebrovascular pathology
12. Rehabilitation in patients with stroke.
13. Primary and secondary prevention in cerebrovascular pathology

### **Annex 4**

#### **THEMES of ABSTRACTS (7-8 semester)**

1. Rear longitudinal beam system, function.
2. The types of ataxias, topical value.
3. Options hemianopsia, topical value.
4. Alternating syndromes of the concept of topical importance, to give examples.
5. Neuroplasticity in the practice of medicine.
6. Modern approaches to the treatment of ischemic stroke.
7. Complex treatment of hemorrhagic stroke.
8. Modern methods of treatment of hydrocephalus.
9. Modern approaches to neuropharmacology of epilepsy.
10. Neurosurgical treatment of epilepsy.
11. Principles of rehabilitation of patients with cerebral palsy. 12. Invasive and non-invasive methods of prenatal diagnosis
13. DNA diagnostics of hereditary diseases.
14. Methods of genetic engineering in the service of diagnosis and treatment of nervous diseases.

### **Annex 5**

## THE QUESTIONS FOR THE CONTROL WORK

- General neurology (7th semester)**
1. Normal reflexes and their pathology.
  2. Pathological reflexes (foot, hand)
  3. Superficial sensitivity-conducting pathways, symptoms destruction.
  4. Deep sensitivity-conducting pathways, symptoms destruction.
  5. Types of sensitivity disorders.
  6. Pyramid path. The symptoms of Central and peripheral paralysis
  7. The clinical manifestations of the syndrome Brown-Sekara.
  8. Horner's Syndrome
  9. Clinic of complete transverse lesion of the spinal cord at the level of cervical thickening.
  10. Clinic full transverse lesions of the spinal cord at the lumbar thickening.
  11. Clinic of complete transverse lesion of the spinal cord at the level of thoracic segments.
  12. Striate system, the symptoms of the infection.
  13. Pallegama system, symptoms
  14. Olfactory nerve and the symptoms of his defeat
  15. Draw a diagram of the optic nerve pathways
  16. Types of hemianopsia.
  17. Oculomotor nerve and symptoms of its damage.
  18. Symptoms of trigeminal nerve damage
  19. Symptoms of facial nerve damage
  20. Clinic lesions of the auditory nerve
  21. The vestibular nerves and the symptoms of his defeat.
  22. Bulbar paralysis
  23. Pseudobulbar paralysis.
  24. Hypoglossal nerve and the symptoms of his defeat.
  25. The concept of alternating syndromes, give examples.
  26. Pathways of the cerebellum (Flexia and Govers)
  27. Symptoms of cerebellum lesion.
  28. Speech and its disorders.
  29. Gnosis and types of agnososes.
  30. Praxis and types of apraxis.
  31. Memory and its disorders.
  32. Disorders of innervation of the bladder and rectum.
  33. Hypothalamic syndrome.
  34. Vegetodistonia syndrome, clinical forms
  35. Syndromes of lesion of the frontal lobe.
  36. Syndromes of lesion of the parietal lobe.
  37. Syndrome lesions of the temporal lobe.
  38. Syndrome lesions of the occipital lobe.
  39. Syndrome of lesion of the brachial plexus.
  40. Syndromes of lesion of the ulnar nerve.
  41. Syndromes of lesion of the radial nerve.
  42. Syndromes of lesion of the median nerve.
  43. Syndrome of lesion of the lumbosacral plexus.
  44. Symptoms of sciatic nerve damage.
  45. Syndromes of lesion of the femoral nerve.
  46. The degree of impaired consciousness.
  47. Meningeal syndrome, clinic

**Private neurology and neurosurgery (7-8 semester)** 1. Classification of disorders of cerebral circulation.

2. Hemorrhagic cerebral stroke. Risk factor. Pathogenesis, clinic, diagnostics.
3. Principles of treatment of hemorrhagic stroke, emergency therapy.
4. Ischemic cerebral stroke. Risk factor. Pathogenesis, clinic, diagnostics, treatment.
5. Principles of treatment of ischemic stroke, emergency therapy.
6. Subarachnoid hemorrhage. Pathogenesis, risk factors, clinic, diagnostics, treatment.
7. Transient disorders of cerebral circulation. Pathogenesis, risk factors, clinic, diagnostics, treatment.
8. Migraine. Clinic, treatment.
9. Non-migraine headaches.
10. Acute serous meningitis. Etiology, clinic, treatment.
11. Tuberculous meningitis. Treatment.
12. Meningococcal meningitis. Etiology, epidemiology, clinic, treatment, prevention.
13. Secondary purulent meningitis. Etiology, pathogenesis, clinic, treatment.
14. Polio. Etiology, pathogenesis, clinic, treatment, prevention.
15. Vernal encephalitis. Etiology, pathogenesis, epidemiology, clinic, treatment, prevention.
16. Herpetic encephalitis. Etiology, pathogenesis, epidemiology, clinic, treatment, prevention.
17. Trigeminal neuralgia, etiology, pathogenesis, clinic, diagnostics, treatment.
18. Acute demyelinating polyradiculoneuropathy Guillain-Barre. Clinic, diagnostics.
19. The principles of treatment of Guillain-Barre syndrome.
20. Polyneuropathy (diabetic, lead, alcohol, etc.).
21. Criteria for diagnosis of neurotraumatism. Small chorea Pathogenesis, clinic, treatment.
22. Criteria for the diagnosis of neurosyphilis.
23. Criteria for diagnosis of neurospine.
24. Criteria for diagnosis of neurobrucellosis.
25. Vegetative dystonia. Clinic, treatment.
26. Neuropathy VII pairs of cranial nerve.
27. Etiology and types of prothalli.
28. Epilepsy and convulsive syndromes.
29. Epileptic status. Pathogenesis, clinic, treatment.
30. Parkinson. Etiology, pathogenesis, clinic, treatment.
31. Myasthenia. Pathogenesis, clinic, treatment. Myasthenic crisis. Cholinergic crisis, criteria, emergency.
32. Tumors of the brain, spinal cord. Classification.
33. Traumatic brain injury. Classification, diagnosis, treatment.

### **Medical genetics (8th semester)**

1. Classification of hereditary diseases.
2. Medical and genetic counseling: purpose, objectives, conditions.
3. Clinical and genealogical method, its diagnostic capabilities.
4. Prenatal diagnosis, its role in the primary prevention of hereditary and family diseases.
5. Non-invasive methods of prenatal diagnosis: ultrasound, determination of HCG, AFP in serum, the indications, the timing of.
6. Cytogenetic methods of research. Definition. The essence of the methods.
7. Invasive methods of prenatal diagnostics: amniocentesis, cordocentesis, indications, timing. 8. Invasive methods of prenatal diagnosis, biopsy of the skin, muscles, indications, timing, contraindications.
9. Molecular genetic and biochemical methods of diagnosis of hereditary diseases. Testimony to their conduct.
10. Progressive muscular dystrophy Duchenne, clinic, diagnostics.
11. Hepatolenticular degeneration, clinical features, treatment.
12. Progressive muscular dystrophy Landouzy-Dejerine, a clinical picture.
13. The clinical picture of Klinefelter syndrome.
14. Family amyotrophic lateral sclerosis, clinical features, prognosis.
15. Torsion dystonia, pathogenesis, treatment principles 16. Strumpell's Disease. The type of inheritance, pathogenesis
17. Myotonic dystrophy, Thomson's disease.

18. Friedrich's disease, the clinical picture.
19. The clinical picture of the syndrome Shereshevsky - Turner.
20. The clinical picture of Dawn syndrome.
21. Neural atrophy, Charcot-Marie, diagnosis.
22. Malformations of the nervous system, syringomyelia, diagnosis, treatment.
23. Hypercalcium form of paroxysmal myoplegia, treatment.
24. Family forms of primary parkinsonism, diagnosis, treatment.
25. Phakomatosis. Neurofibromatosis, diagnosis, treatment.
26. Huntington's chorea, diagnosis, treatment.

**PRACTICAL SKILLS (7th semester)**

1. Methods of examination of the motor sphere
2. Methods of examination sensitive sphere. Pain points, meningeal signs and symptoms of tension.
3. Methods of examination of extrapyramidal system, cerebellum.
4. Methods of examination of IX, X, XI, XII, V, VII, VIII pairs of cranial nerves.
5. Methods of examination of I, II, III, IV, VI pairs of cranial nerves.
6. Methods of examination of vegetative nervous system.
7. Methods of examination of higher nervous activity.

## THE TYPES OF MONITORING AND ASSESSMENT, FORMS OF ASSESSMENT

### TOOLS

#### SITUATIONAL TASKS

##### An example of a task

The patient is determined by a decrease in strength in the hands, a decrease in tendon reflexes and muscle tone, fibrillar and fascicular twitching of the muscles of the shoulder girdle, the movement of the legs is not disturbed. What's the name of motor syndrome? Which entities are affected?

##### Standard of response to the situational problem

Peripheral paraparesis. Damage to the anterior horn of the spinal cord at the level of segments C4- C6.

##### Guidance to the evaluation of situational problems (in %)

- The solution is correct and complete, including all the above elements with theoretical justification and schematic image / 85-100
- The solution is correct, not complete, there is no theoretical justification for the answer / 70- 84
- The solution is incomplete, includes one of the above items / 60-69 □

All items recorded incorrectly / 0-59

#### SCALE OF REPORT EVALUATION

№	Name of the indicator	Mark (in %)
FORM		20
1	Division of the text into introduction, main body and conclusion	0-10
2	A logical and understandable transition from one part to another, as well as inside parts	0-10
CONTENT		60
1	The subject line	0-10
2	The presence of the main topic (thesis) in the introductory part and the appeal of the introductory part to the reader	0-10
3	Development of the topic (thesis) in the main part (disclosure of the main statement through a system of arguments supported by facts, examples, etc.)	0-20
4	Presence of conclusions corresponding to the theme and content of the main part	0-20
REPORT		20
1	The correctness and accuracy of speech while protecting	0-5
2	The wide outlook (answers to questions)	0-10
3	The implementation of the rules	0-5
<b>Total</b>		<b>100</b>

## SCALE OF ESSAY EVALUATION

	Minimal Answer -0-59 %	Stated, disclosed answer	Finished complete answer - 70-84 %	Exemplary, approximate, worthy	III 31
		- 60-69 %		of emulations answer - 85-100 %	
Disclosure of problem	The problem is solved. Absent  Summary	Problem is not disclosed fully.  The conclusions are not made  or conclusions not justify	Problem is solved. The analysis of the problem is carried out without  use of additional literature. Not all conclusions are made or justified.	Problem is solved fully.  The analysis of the problem is carried out with use of additional literature. The conclusions are made.	
Representation	Submitted information logically not associated.	Submitted information is not systematized and not subsequent.	Submitted information systematized and subsequent	Submitted information is systematized, subsequent and logically associated	
Appearance	Not observed Conditions  abstract appearance. More than 4 errors in the Submitted information	3-4 errors in the submitted information	Not more than 2 errors in the submitted information	No errors in the submitted information	
Answers to questions	No answers to questions	Only answers to elementary questions	Answers to questions are complete or partially complete.	The answers to questions are complete with examples and explanations	

Total score	Poor	satisfactory	good	excellent	
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## EVALUATION SCALE OF THE PRESENTATION

	Minimal answer - 0-59%	Stated, disclosed answer- 60-69%	Finished complete answer- 70-84 %	Exemplary, approximate, worthy of emulation answer -85-100%	score
Disclosure of the problem	The problem is not solved. Absent summary	Problem is not disclosed fully. The conclusions are not made or conclusions not justify	Problem is solved. The analysis of the problem is carried out without use of additional literature. Not all conclusion are made or justified.	Problem is solved fully. The analysis of the problem is carried out with use of additional literature. The conclusions are made.	
Representation	Submitted information logically not associated. Professional terms are not used.	Submitted information is not systematized and not subsequent. Used 1-2 professional term	Submitted information is systematized and subsequent. Used more than 2 professional terms.	Submitted information is systematized, subsequent and logically associated. More than 5 professional terms are used.	
Appearance	Informational technologies (PowerPoint) were not used. More than 4 errors in the submitted information	Informational technologies (PowerPoint) were used partially. There are 3-4 errors in the submitted	Informational technologies (PowerPoint) were used. No more than 2 errors in the submitted information	Informational technologies were used widely (PowerPoint). No errors in the submitted information	
Answers to questions	No answers to questions	Only answers to elementary questions	Answers to questions are complete or partially complete.	The answers to questions are complete with examples and explanations	
<b>Total score</b>	<b>Poor</b>	<b>satisfactory</b>	<b>good</b>	<b>excellent</b>	

### SCALE of TESTS EVALUATION (interim control - a "to KNOW»)

Excellent" - 85-100 % of correct answers "Good" - 70-84 % of correct answers

"Satisfactory" - 60-69% of correct answers

"Unsatisfactory" - less than 60% of correct answers

### SCALE of ASSESSMENT of ANALYTICAL AND PRACTICAL TASKS (intermediate control - "be ABLE to OWN»)

#### Oral survey

When evaluating an oral survey, the following criteria are taken into account:

1. Knowledge of the main sections of General and private neurology.
2. The depth and completeness of the disclosure issue.
3. Possession of the terminological apparatus and its use in response.
4. Ability to explain, draw conclusions and generalizations, give reasoned answers.
5. Possession of the consistency of the answer, ability to answer further questions.

**ASSESSMENT ORAL AND WRITTEN ANSWERS TO THE TEST LEVEL OF TRAINING "to be ABLE and to OWN" (in %)**

Mark **(85-100)** assesses the answer, which is stated logically correctly in an accessible form, respectively, the terminology used in neurology, as well as in General in medicine. The student shows excellent knowledge of etiology and pathogenesis of neurological diseases; is able to identify neurological symptoms and syndromes, to make a topical and clinical diagnosis; knows the peculiarities of the clinical course, diagnosis, differential diagnosis, treatment and prognosis of neurological diseases.

Mark **(70-84)** estimated a response that shows a good knowledge of the problems of General and special neurology, peculiarities of formulation of topical and clinical diagnosis, etiology, pathogenesis and course of neurological diseases, diagnosis, differential diagnosis, treatment, and prognosis. Does not give a complete answer or not focused 1 - 2 the above items.

Mark **(60-69)** assesses the response, which shows the average knowledge in General and private neurology, clinical features, diagnosis, differential diagnosis, treatment and prognosis of neurological diseases, average knowledge of the etiology and pathogenesis of neurological diseases; poorly versed in the formulation of topical and clinical diagnoses. Does not give a complete answer or not focused on the above 3 items.

Mark **(0-59)** estimated response which shows a very weak knowledge in matters of General and special neurology. The student does not focus on etiology, pathogenesis, clinical course, diagnosis, differential diagnosis, treatment and prognosis of various neurological diseases, makes serious mistakes in the content of the answer. Demonstrates no understanding of the problem. The job requirements are not met.

**SCALE of ASSESSMENT of PRACTICAL SKILLS (in %)**

Mark **(85-100)** assesses the correct implementation of the methods of neurological examination of the patient, the student calls the methods of research, demonstrates the methodology of the study, gives clear instructions for conducting samples, complies with ethical and deontological principles and individual approach to the patient.

Mark **(70-84)** assessed the correct execution of the techniques of neurological examination of the patient, the student does not give the full name of the methods of research, demonstrates the research methodology does not give clear instructions when carrying out sampling, complying with the ethical and deontological principles and individual approach to the patient.

Mark **(60-69)** assesses the implementation of the methods of neurological examination of the patient, the student does not give the full name of the methods of research, when demonstrating the research methodology allows inaccuracies, it is difficult to give instructions to the patient during the trial, complies with ethical principles.

The mark **(0-59)** is put at not carrying out the technique of neurological examination of the patient, the student does not name the methods of research, can not demonstrate the methodology of the study, it is difficult to give instructions to the patient during the samples, there is no individual approach to the patient.

**SCALE of the EVALUATION HISTORY of the DISEASE (in %)**

Mark **(85-100)** evaluates the history written according to the presented scheme. There is a rationale for topical, preliminary and clinical diagnosis, differential diagnosis. The plan of survey corresponds to the diagnosis. Medical and non-drug individual treatment was chosen. The prognosis of the disease course is determined.

Mark **(70-84)** assessed the story. written according to the presented scheme, topical, preliminary and clinical diagnoses are substantiated, not full differential diagnosis is carried out. The survey plan does not include all possible survey methods. The General scheme of treatment of the disease is appointed. The prognosis of the disease course is determined.

Mark **(60-69)** assessed the story. written according to the presented scheme, there is no justification for the topical diagnosis, preliminary and clinical diagnoses are formulated, not a full differential

diagnosis is made. The survey plan does not include all possible survey methods. The General scheme of treatment of the disease is appointed.

Mark **(0-59)** assessed the story. written not according to the scheme, there is no justification for topical diagnosis, preliminary and clinical diagnoses are not formulated, differential diagnosis is not carried out. The survey plan does not include all possible survey methods. The treatment regimen does not correspond to this disease.

## Technological map of the discipline

## Specialty "General Medicine" Course 3, semester 5, number of ZE-4, reporting-credit

Name of discipline modules according to WPD	Control	Form of control	Credit minimum	Credit maximum	Control chart (week of the semester)
<b>Semester 5</b>					
<b>Part 1</b>					
1. General Neurology	Current control	Oral examination, control work, practical skills of neurological examination, attendance.	5	10	4/13
	Threshold control	Written examination, case task, practical skills.	15	20	
<b>Part 2</b>					
2. Private Neurology. Cerebrovascular diseases and infectious diseases of the nervous system.	Current control	Oral examination, control work, abstract, report, presentation, attendance.	5	10	6/15
	Threshold control	Oral examination, test, case task.	5	10	
<b>Part 3</b>					
3. Private Neurology. Myasthenia gravis, demyelinating diseases of the nervous system.	Current control	Oral examination, control work, abstract, report, presentation, attendance, activity.	2	5	8/17
	Threshold control	Oral examination, test, case task.	2	5	
<b>Part 4</b>					
4. Private Neurology. Diseases of the peripheral nervous system.	Current control	Oral examination, control work, abstract, report, presentation, attendance, activity.	3	5	9/18
	Threshold control	Oral examination, test, case task.	3	5	
<b>Total for the semester</b>			<b>40</b>	<b>70</b>	
Intermediate control credit			20	30	
<b>Semester rating for the discipline:</b>			<b>60</b>	<b>100</b>	

*Note: 1 point is deducted for each missed lecture and practical lesson. Technological map of the discipline*

**Specialty “General Medicine” Course 3, semester 6, number of ZE-3, reporting-exam**

Name of discipline modules according to WPD	Control	Form of control	Credit minimum	Credit maximum	Control chart (week of the semester)
<b>Semester 8</b>					
<b>Part 5</b>					
5. Private Neurology. Epilepsy, cerebral palsy.	Current control	Oral examination, control work, abstract, report, presentation, attendance.	5	10	27/37
	Threshold control	Oral examination, test, case task.	5	10	
<b>Part 6</b>					
6. Clinical genetics.	Current control	Oral examination, control work, abstract, report, presentation, genealogy, attendance.	5	10	29/39
	Threshold control	Oral examination, case task, test.	5	10	
<b>Part 7</b>					
7. Neurosurgery	Current control	Oral examination, control work, abstract, report, presentation, attendance.	5	10	32/42
	Threshold control	Written examination, case task, disease history defend	15	20	
<b>Total for the semester</b>			<b>40</b>	<b>70</b>	
Intermediate control exam			20	30	
<b>Rating for the discipline:</b>			<b>60</b>	<b>100</b>	

*Note: 1 point is deducted for each missed lecture and practical lesson.*

Cover SHEET - contains the details of the University, name of Department, name the student indicating the group and course, name, position, title and degree of teacher. Example of design:

KRSU

Head.Department: title, academic degree, name and surname

Lecturer: title, degree, full name

Case history

Name of the patient

Clinical diagnosis

Curator: student's name, course, group

THE PASSPORT PART:

Last name, first name, middle name.

Home address.

Date of the disease.

Date of receipt.

Place of work.

1. Patient's complaints (in the first place the basic, then the General character)

2. Anamnesis of the disease (from what the disease began, how it developed, what treatment received, what is the effect of the treatment).

The life history characteristics of the development age stages. From what age he began to walk, to talk, to attend school. The conditions of life and upbringing in the family.

School performance.Education.Diseases experienced in childhood is particularly noteworthy: seizures, stuttering, sleepwalking, and bedwetting in adulthood. Intoxication: alcohol, tobacco, food and other

Physical injuries suffered operations. Injuries of the skull and spine, disorders in the acute period and the consequences. Mental strain, a conflict situation and the reaction to them. Labour

activity: profession, qualification and work experience, working conditions. Professional hazards.

Working capacity before the disease and in connection with this disease. Sexual life, with no age. In

women-the beginning of menstruation, pregnancy, childbirth, abortion, abortions. Marital status, family composition.The relationship between the parents. Diseases the closest relatives (to make the

genealogical table). Housing conditions and material security.)

3. Status praesens objectivus (the data of objective inspection): Somatic status (according to the standard scheme) Neurological status:

State of consciousness, the presence of cerebral symptoms.

Meningeal symptoms.

Stigma of dizembriogeneza.

Skull shape

Cranial nerves (1 to 12 pairs)

Motor sphere-the volume of active movements, if you go to specify the type of gait, muscle tone, muscle strength, the presence of atrophy, their symmetry. Tendon reflex

Pathological reflex

Coordination sphere Sensitivity.

Vegetative disorders (function of pelvic organs, dermatography, trophic disorders) Higher nervous activity.

4. Preliminary diagnosis: exposed on the basis of complaints, anamnesis data diseases and life, the allocation of leading neurological syndromes, establishment of topical diagnosis, followed by nosological form.

5. Plan examination of the patient (logically follows from the preliminary diagnosis, you either agree or disagree).

6. The results of the survey (discharged from the medical history patient's.)

7. Differential diagnosis is carried out with 2-3 similar clinic diseases.

8. Prescribed treatment (prescription with the calculated dose, method and multiplicity of the drug).

9. Clinical diagnosis and its justification (use only necessary data, allowing to diagnose). Basic and

concomitant diagnosis settle separately.

10. Diaries (should reflect the dynamic of the process, only 2-3).
11. Discharge or stage epicrisis (if the patient continues to be in hospital) - the time of stay in hospital, the clinical diagnosis is specified, complaints, objective examination data, examination, treatment, the effect of the treatment. Recommendations.

## Рецензия

на рабочую программу дисциплины «Неврология, медицинская генетика, нейрохирургия» по специальности «Лечебное дело» с английским языком обучения.

Программа подготовлена на кафедре неврологии, нейрохирургии и медицинской генетики к.м.н., доцентом Мусабековой Т.О., к.м.н., доцентом Василенко В.В.

Рабочая программа дисциплины «Неврология, медицинская генетика, нейрохирургия» для специальности «Лечебное дело» включает в себя описание целей освоения дисциплины, профессиональные компетенции обучающегося, формируемые в результате освоения дисциплины, структуру и содержание дисциплины, фонд оценочных средств, учебно-методическое обеспечение, включающее основные учебные пособия для студентов и современные учебно-методические издания за последние 5 лет, перечень информационных, образовательных технологий и методические указания по освоению дисциплины. Определены условия реализации рабочей программы дисциплины на 5 и 6 семестре обучения.

Образовательные технологии включают интерактивные формы обучения: ролевые игры, мозговой штурм, работа в малых группах, научно-практические конференции, включая подготовку историй болезней, разбор больных, ситуационные задачи с видео кейсами и мультимедийным материалом.

В рабочей программе дисциплины приведены 8 видов оценочных средства, для оценки результатов обучения, по каждому виду контроля даны шкалы оценивания. Используемые методы оценивания достаточно объективны, по содержанию соответствуют формируемым компетенциям у студентов в результате прохождения дисциплины.

Рецензируемая рабочая программа дисциплины «Неврология, медицинская генетика, нейрохирургия» полностью соответствует ГОСВПО КР по специальности 560001 - Лечебное дело, и может быть использована в учебном процессе на кафедре «Неврологии, нейрохирургии и медицинской генетики» Кыргызского Российского Славянского университета.

д.м.н, профессор, заместитель директора по науке Кыргызского Научно-исследовательского института курортологии и восстановительного лечения, Кулов Болот Бейшеналиевич-



*Рецензия*

на рабочую программу дисциплины «Неврология, медицинская генетика, нейрохирургия» по специальности «Лечебное дело» с английским языком обучения.

Программа подготовлена на кафедре неврологии, нейрохирургии и медицинской генетики к.м.н., доцентом Мусабековой Т.О., к.м.н., доцентом Василенко В.В.

Рабочая программа дисциплины «Неврология, медицинская генетика, нейрохирургия» создана по универсальной схеме в системе ИАИС. Рабочая программа содержит описание целей освоения дисциплины. Приведены формируемые профессиональные компетенции с указанием результатов обучения. Подробно описаны структура и содержание дисциплины, состоящие из 6 разделов и включающие вопросы общей, частной неврологии, медицинской генетики и нейрохирургии. Учебно-методическое, информационное обеспечение представлено основной, дополнительной литературой по дисциплине, включая современные издания за последние 5 лет, а также методическими разработками кафедральных сотрудников, перечнем интернет ресурсов, которые студент может использовать при подготовке к лекционным, практическим занятиям, для самостоятельной работы и прохождения текущего, рубежного контроля, промежуточной аттестации. В программе описаны современные компетентностно-ориентированные образовательные технологии и формы контроля. Приведены методические указания по освоению дисциплины, оценочные средства и пример их решения. Определены условия реализации рабочей программы дисциплины.

Таким образом, рабочая программа дисциплины «Неврология, медицинская генетика, нейрохирургия» полностью соответствует ГОСТВПО КР по специальности 560001 - Лечебное дело и может быть использована в учебном процессе на кафедре «Неврологии, нейрохирургии и медицинской генетики» Кыргызского Российского Славянского университета.

Доцент кафедры терапии

Кыргызского Российского Славянского университета,

к.м.н. Джайлобаева К.А.



ПОДПИСЬ ЗАВЕРЯЮ!  
ОК ГОУВПСФКРСУ  
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