

Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"
Ministry of Health of the Russian Federation

BANK OF ASSESSMENT TOOLS FOR DISCIPLINE/PRACTICE

NEUROLOGY

Training program (specialty): **31.05.03 DENTISTRY**

Department: **NERVOUS DISEASES**

Mode of study **FULL-TIME**

Nizhniy Novgorod
2021

1. Bank of assessment tools for the current monitoring of academic performance, mid-term assessment of students in the discipline / practice

This Bank of Assessment Tools (BAT) for the discipline "Neurology" is an integral appendix to the working program of the discipline "Neurology". All the details of the approval submitted in the WPD for this discipline apply to this BAT.

(Banks of assessment tools allow us to evaluate the achievement of the planned results stated in the educational program.

Assessment tools are a bank of control tasks, as well as a description of forms and procedures designed to determine the quality of mastering study material by students.)

2. List of assessment tools

The following assessment tools are used to determine the quality of mastering the academic material by students in the discipline/ practice:

No.	Assessment tool	Brief description of the assessment tool	Presentation of the assessment tool in the BAT
1	Situational tasks	A method of control that allows you to assess the criticality of thinking and the degree of the material comprehension, the ability to apply theoretical knowledge in practice.	List of tasks
2	Test	A system of standardized tasks that allows you to automate the procedure of measuring the level of knowledge and skills of a student	Bank of test tasks

Approximate list of assessment tools (select the one you need)

№	Name of assessment tool	Brief description of the assessment tool	Presentation of assessment tool in the bank
1	Test №1	A system of standardized tasks that allows you to automate the procedure of measuring the level of knowledge and skills of a student	Bank of test tasks
	Test №2		
3	Course work (project)	A tool of verifying the ability to present the results of theoretical, calculated, analytical, experimental studies	List of coursework topics (projects)
4	Business/role-playing game	Joint activity of a group of students and a teacher under the guidance of a teacher in order to solve educational and professionally-oriented tasks by game modeling of a real problem situation. It allows you to evaluate the ability to analyze and solve typical professional tasks	Topic (problem), concept, roles and expected outcome for each game
5	Case - task	A problem task in which the student is offered to comprehend a real professionally-oriented situation necessary to solve this problem.	Tasks for solving cases
6	Colloquium	A tool of controlling the mastering of study materials of a topic, section or sections of a discipline, organized as a class in the form of an interview between a teacher and students.	Questions on topics/sections of the discipline

7	Round table, discussion, controversy, debate	Assessment tools that allow students to be included in the process of discussing a controversial issue, problem and evaluate their ability to argue their own point of view	List of discussion topics for a round table, discussion, polemic, debate
8	Portfolio	A targeted selection of student's works, revealing his/her individual academic achievements in one or more academic disciplines	Portfolio structure
9	Project	The final product obtained as a result of planning and execution of a complex of educational and research tasks. It allows students to evaluate the ability to independently construct their knowledge in the process of solving practical tasks and problems, navigate the information space and the level of formation of analytical, research skills, practical and creative thinking skills. It can be performed individually or by a group of students	Topics of group and/or individual projects
10	Workbook	A didactic complex designed for independent work of the student and allowing to assess the level of mastering study materials	Workbook sample
11	Solving sets of tasks	The following tasks are distinguished : a) of reproductive level, allowing to evaluate and diagnose knowledge of factual material (basic concepts, algorithms, facts) and the ability to correctly use special terms and concepts, recognition of objects of study within a certain section of the discipline; b) of reconstructive level, allowing to evaluate and diagnose the ability to synthesize, analyze, summarize factual and theoretical material with the formulation of specific conclusions, the establishment of cause-and-effect relationships; c) of creative level, allowing to evaluate and diagnose skills, integrate knowledge of various fields, argue your own point of view	A set of multi-level tasks
12	Essay	A tool that allows you to evaluate the student's ability to state the essence of the problem in writing, independently analyze this problem using concepts and analytical tools of the relevant discipline, and draw conclusions summarizing the author's position on the problem.	The subject of the essay
13	Control work	A tool of checking the ability to apply acquired knowledge for solving problems of a certain type by topic or section	Set of control tasks in variants
14	Creative task	A partially regulated task that has a non-standard solution and allows you to diagnose skills, integrate knowledge of various fields, and argue own point of view. It can be performed individually or by a group of students.	Group topics and/or individual creative tasks

15	Abstract	The product of the student's independent work, which is a summary in writing of the results of the theoretical analysis of a certain scientific (educational and research) topic, where the author reveals the essence of the problem under study, provides various points of view, as well as his /her own views on it.	List of abstract topics
16	Terminological dictation	A knowledge testing tool that allows you to evaluate the theoretical training of a student.	List of terms
17	Individual survey	A control tool that allows you to assess the degree of comprehension of the material	List of questions
18	Interview	A tool of control organized as a special conversation between the teacher and the student on topics related to the discipline being studied, and designed to clarify the amount of knowledge of the student on a specific section, topic, problem, etc.	Questions on topics/sections of the discipline
19	Situational tasks	A method of control that allows you to assess the criticality of thinking and the degree of the material comprehension, the ability to apply theoretical knowledge in practice.	List of tasks
20	Report	The product of the student's independent work, which is a public presentation about the results obtained by solving a certain educational, practical, research or scientific topic	Topics of reports, presentations

3. A list of competencies indicating the stages of their formation in the process of mastering the educational program and the types of evaluation tools

Code and formulation of competence*	Stage of competence formation	Controlled sections of the discipline	Assessment tools
GPC-9	Current	Section: Motor system. Motor paralysis Extrapyramidal system. Parkinsonian syndrome. Dyskinesias. Cerebellar anatomy. Cerebellar disorders symptoms Section: Sensory system Section: Cranial nerves	Situational tasks, Test
UK8 GPC6 GPC8 GPC9 PC10	Current	Section: Ischemic stroke. Hemorrhagic stroke and subarachnoid hemorrhage. Section: Meningitis, encephalitis, brain abscess. Neurological complications of HIV/AIDS Section: Epilepsy. Disorders of consciousness. Fainting. Coma. Section: Tumors of the brain and spinal cord Section: Brain and spinal cord injuries.	Situational tasks, Test

		Section: Diseases of the peripheral nervous system. Back pain.	
<i>UK8</i> <i>GPC6</i> <i>GPC8</i> <i>GPC9</i> <i>PC10</i>	Mid-term	All sections	Situational tasks, Test

4. The content of the assessment tools of entry, current control

Current control is carried out by the discipline teacher when conducting classes in the form of: Task

Assessment tools for current control.

4.1. Tasks for the assessment of competence "GPC-9":

Task

Two hours prior to admission to the emergency ward a 52 year- old man developed right arm, hand and leg weakness. At the time of examination, dysphasia and right face drooping were noted. Over the ensuing hour the patient became obtunded, areflexic on the right side, and completely unable to lift the right arm against gravity. The physical exam added no new information.

- .Name the syndrome
- .What is the topical diagnosis&

Task

A 65 year-old man complained of weakness in the right arm. For 3 months he had been dropping objects, and it was gradually getting worse. There were no sensory symptoms. On exam, the patient was mildly confused and speech was slow and slurred. The right nasolabial fold was flat. Muscle bulk was normal. No fasciculations were seen. Rapid passive movements of the right arm or leg met with resistance which would give way ("clasp-knife"). Strength was minimally diminished in the right intrinsic hand muscles, the wrist dorsiflexors, triceps, deltoids, iliopsoas, hamstrings and tibialis anterior. A right pronator drift was observed. Finger movements were slow on the right. The right leg circumducted while walking. Reflexes were hyperactive on the right. The right plantar response was extensor. Sensation to touch, pin, cool, vibration was normal. Two-point discrimination, point localization and graphesthesia were poorly done on the right in comparison with the left.

- .Name the syndrome
- .What is the topical diagnosis&
- .Give a few etiological possibilities.

Task

A 62 year old man complains of tremor of the right hand for six months. It began with an occasional tremor of the right thumb but has gradually spread to all fingers and is now continuous. He has also noticed that his handwriting has become smaller and more difficult to read. It is harder for him to use a toothbrush with the right hand and his wife must help him button the left shirt sleeve. She has observed that her husband occasionally drools and that his voice is softer. On examination, the patient is mentally normal but often responds slowly. The voice is soft and monotone. Facial expression and blink rate are diminished. He pushes off with his hands when arising from a chair and the gait is slowed with short steps and decreased arm swing on the right. There is a slow, resting tremor of the right hand which suppresses with maintenance of a posture. There is an occasional,

asymptomatic tremor of the right foot. There is cogwheel rigidity in both upper extremities, the right more than left, with slowed repetitive movements of the right hand and foot.

.Name the syndromes?

.Distinguish the following tremors: Parkinson's, Essential, Cerebellar.

.What is meant by "tone?" Distinguish flaccidity, spasticity, cogwheel rigidity, and paratonic ("lead-pipe") rigidity.

Task

You are asked to consult on a 35 year old woman hospitalized on the psychiatry service for evaluation of "muscle twitches." The patient is currently hospitalized for depression and anxiety. Further history reveals that the patient's work performance has declined over the past year associated with changes in personality and occasional poor judgment. The patient's family history reveals that her father died at age 50 in a nursing home of "Alzheimer's disease." The patient's paternal grandmother died in a mental institution of unclear cause. The patient's brother is described as being "restless." The patient's children are healthy. On examination, the patient is dysarthric and shows impaired memory and concentration on mental status testing. She has irregular "jerky movements," of the hands, feet, and trunk. These are rapid and non-stereotyped. The patient's saccades are slow but with full eye movements. There is a milkmaid's grip. The patient has an unusual gait disorder, placing the feet irregularly with a tendency to trip and demonstrate "dancing like" movements.

.What is the syndrome?

.Name the difference between tremor, myoclonus, chorea and dystonia.

.What neuroimaging finding is seen in Huntington's disease?

Task

A 55 year old right-handed man presented with a 4 hour history of weakness and tingling of his right hand and numbness of the right side of his mouth. Mild difficulty was experienced with word finding. Symptoms had improved since onset, but had not fully resolved. There was no significant past symptomatology.

Vital signs and general physical exam were normal. Mental status and speech were normal. Right nasolabial fold was flat relative to the left, but all other cranial nerve functions were intact. Subjective numbness was noted over the right distal hand, with errors exhibited in tests for two-point discrimination and graphesthesia. A mild right arm pronator drift and clumsiness of finger tapping in the right hand were observed. Reflexes were slightly more active on the right. The right toe was upgoing.

.Name the syndromes

.Where is the likely focus of the lesion?

Task

A 47 year-old right-handed man developed progressive numbness of both feet over a 6 month period. Recently, his fingertips started feeling numb. He described an unpleasant burning sensation. Weakness was denied.

On exam, mentation and cranial nerves were normal. There were no palpably enlarged nerves, nor high arches. Position and vibration sense were grossly diminished in the feet. Cool stimuli and pin were perceived, but there was a subjective stocking distribution of numbness to mid-calf bilaterally. Reflexes were absent at the ankles and diminished elsewhere. Strength was close to normal, except that he could not walk on his heels.

.What type of sensory disorder is there?

.Is there evidence for autonomic involvement? What points in the history and exam might be explored to test this?

Task

A patient has been a heavy drinker for the last few years. He has begun to observe the pain and a decreasing of sensation in the arms and legs for the last 2-3 months.

Objectively: A decrease of all types of sensation in the arms and legs according to the type the “socks “ and “ gloves” is present. Ankle jerk reflexes are absent.

- .Name the syndrome.
- .What is the topical diagnosis?

Task

A 40 year old male patient applies to the doctor with complaint of transient attacks of unpleasant smell feeling that last for 1-2 minutes. Objectively: left-side quadrant hemianopia is present.

- .Name the syndrome.
- .What is the topical diagnosis?

Task

A 26 year-old right-handed woman complained of headache and blurred vision for 6 weeks. There was no history of underlying disease nor head trauma. Fundi showed bilateral papilledema. Visual fields were concentrically constricted and her blind spot was enlarged, but acuity was 20/20 (normal) in each eye.

- .What is papilledema? What may mimic it?
- .What is the differential diagnosis of this case?
- .How would you proceed?

Task

A 25 year-old woman suddenly notices that her left pupil is larger than her right (5 vs 3 mm).

- .What is the pathway mediating the pupillary light reflex?
- .What is the differential diagnosis of anisocoria?
- .What is a "IIIrd nerve palsy"? A "Homer's Syndrome"? What do each signify?

Task

A 50 year old patient was hospitalized with complaints of shooting pains in the left part of his face. The pains last from several seconds to several minutes. The attacks are provoked by chewing, talking, washing, cleaning teeth. On neurological examination no pathology was revealed.

- .Name the syndrome.
- .What is the topical diagnosis

Task

A patient complains of the double vision in the eyes, especially looking laterally. Objectively: the movements in the right eye are totally absent, the right upper eyelid is lowered, the right papilla is wider than the left one. There is loss of photoreaction, accommodation and convergence.

- .Name the syndrome.
- .What is the topical diagnosis

Task

A 62 year old patient went to a doctor with a complaint of the weakness in the right extremities and a double vision. Objectively: dropping eyelid is present on the left side. Widening of the left papillae, and a strabismus divergence on the left side. On the right side hemiplegia with high muscle tone and tendon reflexes and positive Babinski sign is present.

- .Name the syndrome.
- .What is the topical diagnosis

Task

In a 16 year old male suddenly, after the cooling, the face distorted and taste became worse. Objectively: the loss of expression in right half of the face with an inability to close the eyes, to raise an eyebrow and to frown. There is also a decrease of lacrimation on the right side, increased sensitivity to sound in right ear, reduced sense of taste in two thirds of the right half of the tongue

.Name the syndrome.

.What is the topical diagnosis

Task

A 46 year old male patient applies to the doctor with complaint of the double vision in the eyes. Objectively : dropping eyelid and widening of the papillae are present on the left side. The left eye is turned outside and downwards.

.Name the syndrome.

.What is the topical diagnosis

Task

A 50 year-old woman complained of dizziness when turning over in bed. She was otherwise well and without antecedent illness or medical history of note. Exam demonstrated transient torsional-vertical nystagmus after the patient quickly moved her head back with the right ear down.

.Name the syndrome.

.What is the topical diagnosis?

.What studies can be done to clarify the etiology of this syndrome?

Task

A 33 year-old woman slowly developed tinnitus and lost hearing in her left ear over a 2 year period. There were no other reported symptoms. Exam confirmed decreased acuity on the left, with air conduction greater than bone conduction bilaterally, and Weber lateralizing to the right ear. The left corneal reflex was diminished. A mild clumsiness and intention tremor was noted in the left hand.

.What is the differential diagnosis of hearing loss in one ear?

.What neural systems are impaired in this woman?

Task №

A female patient applies to the doctor with a complaint of the decreasing sharpness of the hearing and presence of the noise in the right ear and dizziness . Objectively: a decrease of sensation in the right half of the face is present. There is loss of the right corneal reflex, right side paralysis of the mimic face muscles, staggering to the right when standing in Romberg's posture and intentional tremor during a finger-to-nose test on the right side.

.Name the syndrome.

.What is the topical diagnosis?

Task

A 12 year old patient complains of the decreasing sharpness of the hearing and presence of the permanent noise in the left ear and transient dizziness that are accompanied by nausea and staggering while a walking. Objectively hypoakusia on the left side, nystagmus and staggering the left in Romberg's posture are present..

.Name the syndrome.

.What is the topical diagnosis?

Task

A 12 year old child has been suffering from diphtheria. On the 15-d day of the disease disturbances during swallowing, "nasal tone" and hoarseness of the voice appeared,. Objectively: excursion of the palatine during the phonation is limited, palatine and pharyngeal reflexes are lost, tachycardia is present.

- .Name the syndrome.
- .What is the topical diagnosis?

Task

In a 43 year old patient the disorder of the swallowing, slurred speech and loss of sonority of voice appeared during the last 2 months. Objectively: palatal movement is absent on the right side, gag reflex is absent on the same side, dysphagia, dysphonia, dysarthria are present. The protruded tongue is deviated to the right side , a right half of the tongue is wasted and wrinkled.

- .Name the syndrome.
- .What is the topical diagnosis?

Task

A 59 y/o right-handed man was brought to the emergency room because of sudden onset of disturbance of speech. On examination, he spoke spontaneously and excessively but conveyed little meaning. He used paraphrasias and neologisms. He could carry out only simple instructions. Naming, repetition, and reading were all impaired.

- .Name the syndrome.
- .What is the topical diagnosis?
- .Define "aphasia", "apraxia", "agnosia", "alexia", "agraphia".
- .Describe Broca's vs. Wernicke's aphasia & usual lesion site.

Task

A 50 year old patient was hospitalized to the emergency . At work he had a transient loss of consciousness

Objectively high arterial pressure was registered. The level of consciousness was normal. The comprehension of the addressed speech was intact and the patient carried out primitive instructions (such as "Shake the hand"). At the same time the patient couldn't not answer the questions and only pronounced the sounds " yea-yea".

- .Name the syndrome.
- .What is the topical diagnosis?

Task

In a 59 old male patient speech disorders and weakness in the right extremities (more in the arm) developed suddenly. Objectively: the range of active movements is limited in the right extremities. Barre test is positive on the right side, more in the arm. The muscle tone is increased in the flexors muscles of the right arm and in the extensors muscles of the right leg. The tendon reflexes on the right side are increased. Babinski sign is positive on the right side. The motor aphasia is present.

- .Name the syndrome.
- .What is the topical diagnosis?

Tasks for the assessment of competence "UK-8":

Task

How would you comment the following CSF?

- .Pleocytosis is 120/mm³
- .Lymphocytes are 100/ mm³
- .Polymorphonuclear leukocytes are 20/ mm³
- .Proteins are 1.66 g/L
- .Sugar content is 20 mg/dL
- .CSF is cloudy with clots.

Task

How would you comment the following CSF?

.CSF pressure is 400 mm H₂O

.The CSF is cloudy and of yellow-green color

.Cytosis is 2000/ mm³ ; polymorphonuclear leukocytes (neutrophils) are prevailed

.Protein is 5,6 g/L

.Sugar content is 20 mg/dL.

Task

A 36 year old woman was hospitalized with severe headache and weakness in both her left arm and leg. Disease has been developing gradually for 2 weeks. The woman has chronic infection in the middle ear.

Objectively: the patient is confused; body temperature is 38,9°. Left side spastic hemiparesis and papilledema are present.

Laboratory blood tests: the cell count and erythrocyte sedimentation rate are elevated.

The brain precontrast CT scan reveals an area of higher density than the surrounding edematous brain in the right frontal lobe. The contrast CT study demonstrates rim enhancing lesion with thickened capsule and hypodense central cavity.

.Name the syndrome.

.What is the topical diagnosis?

.How would you proceed?

Task

A 20 year old female complains of fever, chills, severe headache, nausea and vomiting. The onset of disease was acute

Objectively: level of consciousness is altered (GCS = 13). The body temperature is 39°C. There are petechiae on the skin. Fast pulse, shortness of breath and stiffness of neck muscles are present. Kernig's sign is positive.

.What is an initial diagnosis? What laboratory data are needed for the final diagnosis?

Task

A 22 year old male patient has been suffering from weakness, irritability, headache, fever, vomiting and insomnia for 8 days. The last 2 days the visual acuity decreased and double vision appeared.

Objectively: body temperature is 37,8°C. Stiffness of neck muscles, positive Kernig's signs, incomplete bilateral ptosis, dilatation of both pupils and slight strabismus divergent are observed.

• Name the syndromes

• What further examination is needed?

• What results of examination are expected/

Task

A 25 year old male patient has been suffering from chronic lymphadenopathy, weight loss, fever, and diarrhea for 2 months. Recently apathy, indifference, reduction of libido, poor concentration and memory impairment have developed.

Examination has revealed slight manifestation of Parkinsonism and ataxic gait.

.What primary diagnosis would you make?

Task

A 72 year old woman was hospitalized with speech disorder, weakness in both her arm and leg and paralysis of a gaze. The disease began suddenly when she woke up in the morning. During last week she had two attacks of transient mononuclear blindness, which lasted for a few seconds.

Objectively: The level of consciousness was normal, but the woman could not speak. Her face was pale, blood pressure was 180/100 mm Hg, pulse was arrhythmical. There was motor aphasia, conjugate gaze deviation to the left, right side hemiparesis and positive Babinsky's sign.

• Make an initial diagnosis, administer examination and treatment.

Task

A 45 year old man was admitted to clinic. His level of consciousness was reduced, with GCS =10. He had severe headache, vomiting and weakness in both his arm and leg. The disease has developed suddenly after emotional overstrain. Also the patient has been suffering from hypertension for a long time.

Objectively: the patient's face is red. His blood pressure is 220/120 mm Hg, and his pulse is 60 beats per minute. Neck muscles rigidity is about 3 cm, Kerning symptom is positive at an angle of 100°. The left pupil is dilated and right side hemiparesis and hemihyposesthesia are observed.

.Make an initial diagnosis and administer the following examination and urgent treatment.

Task

A 35 year old man was admitted to the emergency room with confused state. The disease had an acute onset. It began suddenly with a very severe headache, after which the disturbance of consciousness and vomiting developed.

Objectively: there is delirium, neck muscles rigidity of 5 cm, Kerning's symptom. Focal neurologic symptoms are absent.

.Make an initial diagnosis and administer examination.

Task

A 25 year old man was admitted 15 minutes ago. He got a blow on his face and lost consciousness for 2-3 minutes. When he regain his consciousness he couldn't understand what had happened. Now he complains of headache and nausea.

Objectively: pallor of the face, sweating of palms, postural tremor of fingers and instability in Romberg's test are observed.

• Make an initial diagnosis and administer examination.

Task

A 30 year old woman was hospitalized 2 hours after the accident. She was unconscious for 15 minutes after the trauma. Then she began to understand what she was asked about and became able to answer the questions, but was sleepy.

Objectively: perforation of the right tympanic septum and Bell's palsy were revealed.

Make an initial diagnosis and administer examination and treatment.

Task

The patient is a 55 year old woman. A week ago she fell down and damaged the back of the head. After that a headache and vomiting developed. Then she felt satisfactory for three days. But the day before yesterday headache appeared again and became more severe. The woman was not able to go to work yesterday. And today she has been taken to hospital by her relatives.

The examination showed the following: low level of consciousness (CGS = 10), widening of the right pupil, bradycardia and left side hemiparesis with Babinsky's sign.

.Make a primary diagnosis and administer examination and treatment.

Task

A 32 year-old woman complains of pain in her back and left leg. Three weeks earlier, while standing on a ladder to change a light bulb, she suddenly felt a pain in her left thigh. Later, sharp shooting pain spread down along the posterior side of the left leg to a heel.

Pain was worsened by sitting and standing. Weakness and numbness were denied. There were no sphincter symptoms. There was no history of trauma.

.What nerve(s) and roots are implicated in this woman's pain?

.Where weakness might be expected? What reflex might be lost?

.What are the "danger" symptoms of back pain which would argue for MRI and possible early surgery?

.Give a few etiologies for low back pain.

Task

The patient is a 35 year old driver. He suffered from recurrent back pain for 4 years. 3 days ago he felt acute pain in the lower part of his back after lifting a heavy object. Pain irradiated to his right leg. Pain becomes worse when coughing and sneezing.

Objectively: the movements in the lumbar area are limited because of pain. Knee jerk reflexes are intact, left ankle jerk reflex is present, but the right one is absent. Reduction of muscle power of the right foot flexors is observed. Sensitivity of the lateral parts of the right foot and shin is decreased.

Make a diagnosis and administer treatment.

Task

A 28 year old patient fell asleep after alcohol abuse. When he woke up, he felt weakness in his left hand.

Objectively: radial deviation of the hand, weak wrist extension, weak extension of all digits, normal sensory findings are observed.

.Make a diagnosis and administer treatment.

Task

A 56-year-old female was hospitalized with complaints of burning pain in shins and feet. For last five years she periodically felt thirsty, suffered from hunger and fatigue.

Objectively: loss of both superficial and deep sensations of the stocking type and absence of ankle reflexes. Systolic blood pressure falls down to 30 mm Hg. when she changes her position from horizontal to vertical one.

• Make a diagnosis and administer treatment.

Task

The patient is a 45-year-old man. He complains of severe pain, numbness and tingling in the buttocks and legs, weakness in legs, and incontinence of bladder and bowels.

These disorders evolved slowly during last 4 months.

Objectively: asymmetric flaccid paraplegia in legs, absence of both ankle and knee jerks, loss of sensation in L4-S5 dermatomes (in lower extremities and an anogenital area) are observed.

.Make an initial diagnosis and administer examination and treatment.

.What are the major types of neurogenic bladder?

Task

A male patient, after the cooling, suddenly the pain in the postero-lateral region of the right leg appears that growth after bending forwards and taking a seat (sitting down?).

Objectively: Lasseg sign (stretching signs) is positive on the right side. Hypotrophy in the muscles of the feet and shins is present, the movements in the toes (fingers of the foot) are limited, a decrease of the muscle strength in the muscles of the feet and in the flexors of the shins to 4 balls, the ankle jerk tendon reflex is decreased on the right side. A decrease of all kinds of sensation on the postero-lateral region of the right shin and foot are present.

- Where is the pathological object localized?
- Make a clinical diagnosis.
- Call necessary neurophysiologic investigations methods.
- Prescribe a treatment.

Task

A male patient complains of the impossible acute pain and numbness in the left shin, sole of the foot and in the toes on the left side.

Objectively: hypotrophy in the posterior group of the shins muscles and muscles of the soles on the left side, the soles flexion in the foot and in the toes is impossible ; the ankle jerk reflex is very decreased on the left side. The sensation is decreased in the posterior part of the shin, in the soles area of the foot and toes on the left side.

- .Make a clinical diagnosis.
- .Call necessary neurophysiologic investigations methods.
- . Prescribe a treatment.

Task

In a 12 old male patient after the mild pain in the shin, the weakness in the right extremities gradually developed (the foot begin to droop); in the walking often “cling “to the great toe.

Objectively: right foot droop and same deviated medially. It is present the” foot droop gait “. All kinds of sensation are decreased on the lateral border of the shin and on the lower part of the foot.

- .Where is the pathological object localized?
- .Make a clinical diagnosis.
- .Call necessary neurophysiologic investigations methods.
- . Prescribe a treatment.

Task

In a 51 old female patient after the exacerbation of the chronically odnexities on the right side the pain and numbness on the anterior part of the thigh have occurred, difficulties while climbing up the stairs have appeared, taking a seat(sitting down?).

Objectively: the extension in the right shin and abduction to the stomach is limited , hypotrophy of the quadriceps muscle is present. Knee jerk reflex on the left side is intensively decreased. Wasserman sign (stretching signs) is positive. The sensation is decreased on the anterior border of the thigh and in the medial region of the right shin.

- .Where is the pathological object localized?
- .Make a clinical diagnosis.
- .Call necessary neurophysiologic investigations methods.
- .Prescribe a treatment.

Task

A 38-year-old patient has been suffering from morning headache for a year. The headache decreases at daytime. During the last months the headache became severe and vomiting appeared. Over the last few weeks the weakness the left extremities developed.

Objectively: papilledema and left-side hemiparesis are observed.

- Make an initial diagnosis. What is the future examination.

Task

The patient is a 45-year-old man. Relatives noticed the changes in his behavior: inappropriate humor, impaired ability to judgments, gait abnormalities and urinary incontinence. The patient complains of constant headache and vomiting which begins each morning before he rise from bed.

Objectively: inappropriate behavior, loss of smell sense and papilledema were revealed. Gait was noticed to be without any signs of cerebellar ataxia.

- Make an initial diagnosis. Administer the examination.

Task

The 48-year-old woman complains of headaches, fatigue, muscular pains, vision disturbances and amenorrhea. She notes that she is not able longer to put on rings that used to fit and that her shoe size has progressively increased.

Objectively: enlarged hands and feet, prominent supraorbital ridges, protruded mandible, separated teeth and thick lips, enlarged tongue. Bitemporal hemianopsia.

- Make an initial diagnosis. Administer the examination.

Task

The 46-year-old woman has been suffering from progressive unilateral right side loss of hearing for two years. Tinnitus, unstable gait and systemic dizziness appeared half a year ago. Facial numbness and facial weakness developed two weeks ago.

Objectively: papilledema, nystagmus, right side deafness, facial weakness on the right side, intentional tremor and ataxic gait were observed.

.Make an initial diagnosis. Administer the examination.

Task

A 45-year-old woman complains of pain and paresthesias in the left side of the thorax and weakness in the left leg.

Pain appeared two months ago. Her doctor made a diagnosis of "osteochondrosis" and administered anti-inflammatory drugs and physiotherapy. However, pains were growing worse, aggravating at coughing, sneezing and movements of the trunk. The pains were unbearable when the woman was lying down. Last week weakness in her left leg appeared.

Objectively: left leg weakness associated with spasticity, high tendon reflexes and positive Babinsky's symptom was revealed. Decreased pain sensation from the right rib arc to the heel and decreased proprioceptive sensation in the left leg were also observed. Tenderness when tapped over the Th6 spinous process was present.

Name the syndrome. Make an initial diagnosis. Administer the examination

Tasks for the assessment of competence "GPC – 6":**Task**

How would you comment the following CSF?

.Pleocytosis is 120/mm³

.Lymphocytes are 100/ mm³

.Polymorphonuclear leukocytes are 20/ mm³

.Proteins are 1.66 g/L

.Sugar content is 20 mg/dL

.CSF is cloudy with clots.

Task

How would you comment the following CSF?

.CSF pressure is 400 mm H₂O

.The CSF is cloudy and of yellow-green color

.Cytosis is 2000/ mm³ ; polymorphonuclear leukocytes (neutrophils) are prevailed

.Protein is 5,6 g/L

.Sugar content is 20 mg/dL.

Task

A 36 year old woman was hospitalized with severe headache and weakness in both her left arm and leg. Disease has been developing gradually for 2 weeks. The woman has chronic infection in the middle ear.

Objectively: the patient is confused; body temperature is 38,9°. Left side spastic hemiparesis and papilledema are present.

Laboratory blood tests: the cell count and erythrocyte sedimentation rate are elevated.

The brain precontrast CT scan reveals an area of higher density than the surrounding edematous brain in the right frontal lobe. The contrast CT study demonstrates rim enhancing lesion with thickened capsule and hypodense central cavity.

.Name the syndrome.

.What is the topical diagnosis?

.How would you proceed?

Task

A 20 year old female complains of fever, chills, severe headache, nausea and vomiting. The onset of disease was acute

Objectively: level of consciousness is altered (GCS = 13). The body temperature is 39°C. There are petechiae on the skin. Fast pulse, shortness of breath and stiffness of neck muscles are present. Kernig's sign is positive.

.What is an initial diagnosis? What laboratory data are needed for the final diagnosis?

Task

A 22 year old male patient has been suffering from weakness, irritability, headache, fever, vomiting and insomnia for 8 days. The last 2 days the visual acuity decreased and double vision appeared.

Objectively: body temperature is 37,8°C. Stiffness of neck muscles, positive Kernig's signs, incomplete bilateral ptosis, dilatation of both pupils and slight strabismus divergent are observed.

- Name the syndromes
- What further examination is needed?
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Task

A 25 year old male patient has been suffering from chronic lymphadenopathy, weight loss, fever, and diarrhea for 2 months. Recently apathy, indifference, reduction of libido, poor concentration and memory impairment have developed.

Examination has revealed slight manifestation of Parkinsonism and ataxic gait.

.What primary diagnosis would you make?

Task

A 72 year old woman was hospitalized with speech disorder, weakness in both her arm and leg and paralysis of a gaze. The disease began suddenly when she woke up in the morning. During last week she had two attacks of transient monocular blindness, which lasted for a few seconds.

Objectively: The level of consciousness was normal, but the woman could not speak. Her face was pale, blood pressure was 180/100 mm Hg, pulse was arrhythmical. There was motor aphasia, conjugate gaze deviation to the left, right side hemiparesis and positive Babinsky's sign.

- Make an initial diagnosis, administer examination and treatment.

Task

A 45 year old man was admitted to clinic. His level of consciousness was reduced, with GCS =10. He had severe headache, vomiting and weakness in both his arm and leg. The disease has developed suddenly after emotional overstrain. Also the patient has been suffering from hypertension for a long time.

Objectively: the patient's face is red. His blood pressure is 220/120 mm Hg, and his pulse is 60 beats per minute. Neck muscles rigidity is about 3 cm, Kerning symptom is positive at an angle of 100°. The left pupil is dilated and right side hemiparesis and hemihypossthesia are observed.

.Make an initial diagnosis and administer the following examination and urgent treatment.

Task

A 35 year old man was admitted to the emergency room with confused state. The disease had an acute onset. It began suddenly with a very severe headache, after which the disturbance of consciousness and vomiting developed.

Objectively: there is delirium, neck muscles rigidity of 5 cm, Kerning's symptom. Focal neurologic symptoms are absent.

.Make an initial diagnosis and administer examination.

Task

A 25 year old man was admitted 15 minutes ago. He got a blow on his face and lost consciousness for 2-3 minutes. When he regain his consciousness he couldn't understand what had happened. Now he complains of headache and nausea.

Objectively: pallor of the face, sweating of palms, postural tremor of fingers and instability in Romberg's test are observed.

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Task

A 30 year old woman was hospitalized 2 hours after the accident. She was unconscious for 15 minutes after the trauma. Then she began to understand what she was asked about and became able to answer the questions, but was sleepy.

Objectively: perforation of the right tympanic septum and Bell's palsy were revealed.

Make an initial diagnosis and administer examination and treatment.

Task

The patient is a 55 year old woman. A week ago she fell down and damaged the back of the head. After that a headache and vomiting developed. Then she felt satisfactory for three days. But the day before yesterday headache appeared again and became more severe. The woman was not able to go to work yesterday. And today she has been taken to hospital by her relatives.

The examination showed the following: low level of consciousness (CGS = 10), widening of the right pupil, bradycardia and left side hemyparesis with Babinsky's sign.

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Task

A 32 year-old woman complains of pain in her back and left leg. Three weeks earlier, while standing on a ladder to change a light bulb, she suddenly felt a pain in her left thigh. Later, sharp shooting pain spread down along the posterior side of the left leg to a heel.

Pain was worsened by sitting and standing. Weakness and numbness were denied. There were no sphincter symptoms. There was no history of trauma.

.What nerve(s) and roots are implicated in this woman's pain?

.Where weakness might be expected? What reflex might be lost?

.What are the "danger" symptoms of back pain which would argue for MRI and possible early surgery?

.Give a few etiologies for low back pain.

Task

The patient is a 35 year old driver. He suffered from recurrent back pain for 4 years. 3 days ago he felt acute pain in the lower part of his back after lifting a heavy object. Pain irradiated to his right leg. Pain becomes worse when coughing and sneezing.

Objectively: the movements in the lumbar area are limited because of pain. Knee jerk reflexes are intact, left ankle jerk reflex is present, but the right one is absent. Reduction of muscle power of the right foot flexors is observed. Sensitivity of the lateral parts of the right foot and shin is decreased.

Make a diagnosis and administer treatment.

Task

A 28 year old patient fell asleep after alcohol abuse. When he woke up, he felt weakness in his left hand.

Objectively: radial deviation of the hand, weak wrist extension, weak extension of all digits, normal sensory findings are observed.

.Make a diagnosis and administer treatment.

Task

A 56-year-old female was hospitalized with complaints of burning pain in shins and feet. For last five years she periodically felt thirsty, suffered from hunger and fatigue.

Objectively: loss of both superficial and deep sensations of the stocking type and absence of ankle reflexes. Systolic blood pressure falls down to 30 mm Hg. when she changes her position from horizontal to vertical one.

- Make a diagnosis and administer treatment.

Task

The patient is a 45-year-old man. He complains of severe pain, numbness and tingling in the buttocks and legs, weakness in legs, and incontinence of bladder and bowels.

These disorders evolved slowly during last 4 months.

Objectively: asymmetric flaccid paraplegia in legs, absence of both ankle and knee jerks, loss of sensation in L4-S5 dermatomes (in lower extremities and an anogenital area) are observed.

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.What are the major types of neurogenic bladder?

Task

A male patient, after the cooling, suddenly the pain in the postero-lateral region of the right leg appears that growth after bending forwards and taking a seat (sitting down?).

Objectively: Lasseg sign (stretching signs) is positive on the right side. Hypotrophy in the muscles of the feet and shins is present, the movements in the toes (fingers of the foot) are limited, a decrease of the muscle strength in the muscles of the feet and in the flexors of the shins to 4 balls, the ankle jerk tendon reflex is decreased on the right side. A decrease of all kinds of sensation on the postero-lateral region of the right shin and foot are present.

- Where is the pathological object localized?
- Make a clinical diagnosis.
- Call necessary neurophysiologic investigations methods.
- Prescribe a treatment.

Task

A male patient complains of the impossible acute pain and numbness in the left shin, sole of the foot and in the toes on the left side.

Objectively: hypotrophy in the posterior group of the shins muscles and muscles of the soles on the left side, the soles flexion in the foot and in the toes is impossible; the ankle jerk reflex is very decreased on the left side. The sensation is decreased in the posterior part of the shin, in the soles area of the foot and toes on the left side.

.Make a clinical diagnosis.

.Call necessary neurophysiologic investigations methods.

. Prescribe a treatment.

Task

In a 12 old male patient after the mild pain in the shin, the weakness in the right extremities gradually developed (the foot begin to droop); in the walking often “cling “to the great toe.

Objectively: right foot droop and same deviated medially. It is present the” foot droop gait “. All kinds of sensation are decreased on the lateral border of the shin and on the lower part of the foot.

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Task

In a 51 old female patient after the exacerbation of the chronically odnexities on the right side the pain and numbness on the anterior part of the tight have occurred, difficulties while climbing up the stairs have appeared, taking a seat(sitting down?).

Objectively: the extension in the right shin and abduction to the stomach is limited , hypotrophy of the quadriceps muscle is present. Knee jerk reflex on the left side is intensively decreased. Wasserman sign (stretching signs) is positive. The sensation is decreased on the anterior border of the tight and in the medial region of the right shin.

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A 38-year-old patient has been suffering from morning headache for a year. The headache decreases at daytime. During the last months the headache became severe and vomiting appeared. Over the last few weeks the weakness the left extremities developed.

Objectively: papilledema and left-side hemiparesis are observed.

- Make an initial diagnosis. What is the future examination.

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The patient is a 45-year-old man. Relatives noticed the changes in his behavior: inappropriate humor, impaired ability to judgments, gait abnormalities and urinary incontinence. The patient complains of constant headache and vomiting which begins each morning before he rise from bed.

Objectively: inappropriate behavior, loss of smell sense and papilledema were revealed. Gait was noticed to be without any signs of cerebellar ataxia.

- Make an initial diagnosis. Administer the examination.

Task

The 48-year-old woman complains of headaches, fatigue, muscular pains, vision disturbances and amenorrhea. She notes that she is not able longer to put on rings that used to fit and that her shoe size has progressively increased.

Objectively: enlarged hands and feet, prominent supraorbital ridges, protruded mandible, separated teeth and thick lips, enlarged tongue. Bitemporal hemianopsia.

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Task

The 46-year-old woman has been suffering from progressive unilateral right side loss of hearing for two years. Tinnitus, unstable gait and systemic dizziness appeared half a year ago. Facial numbness and facial weakness developed two weeks ago.

Objectively: papilledema, nystagmus, right side deafness, facial weakness on the right side, intentional tremor and ataxic gait were observed.

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Task

A 45-year-old woman complains of pain and paresthesias in the left side of the thorax and weakness in the left leg.

Pain appeared two months ago. Her doctor made a diagnosis of “osteochondrosis” and administered anti-inflammatory drugs and physiotherapy. However, pains were growing worse, aggravating at coughing, sneezing and movements of the trunk. The pains were unbearable when the woman was lying down. Last week weakness in her left leg appeared.

Objectively: left leg weakness associated with spasticity, high tendon reflexes and positive Babinsky’s symptom was revealed. Decreased pain sensation from the right rib arc to the heel and decreased proprioceptive sensation in the left leg were also observed. Tenderness when tapped over the Th6 spinous process was present.

Name the syndrome. Make an initial diagnosis. Administer the examination

Tasks for the assessment of competence "GPC - 8":

Task

How would you comment the following CSF?

- .Pleocytosis is 120/mm³
- .Lymphocytes are 100/ mm³
- .Polymorphonuclear leukocytes are 20/ mm³
- .Proteins are 1.66 g/L
- .Sugar content is 20 mg/dL
- .CSF is cloudy with clots.

Task

How would you comment the following CSF?

- .CSF pressure is 400 mm H₂O
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The brain precontrast CT scan reveals an area of higher density than the surrounding edematous brain in the right frontal lobe. The contrast CT study demonstrates rim enhancing lesion with thickened capsule and hypodense central cavity.

- .Name the syndrome.
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Task

A 20 year old female complains of fever, chills, severe headache, nausea and vomiting. The onset of disease was acute

Objectively: level of consciousness is altered (GCS = 13). The body temperature is 39°C. There are petechiae on the skin. Fast pulse, shortness of breath and stiffness of neck muscles are present. Kernig's sign is positive.

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Task

A 22 year old male patient has been suffering from weakness, irritability, headache, fever, vomiting and insomnia for 8 days. The last 2 days the visual acuity decreased and double vision appeared.

Objectively: body temperature is 37,8°C. Stiffness of neck muscles, positive Kernig's signs, incomplete bilateral ptosis, dilatation of both pupils and slight strabismus divergent are observed.

- Name the syndromes
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Task

A 25 year old male patient has been suffering from chronic lymphadenopathy, weight loss, fever, and diarrhea for 2 months. Recently apathy, indifference, reduction of libido, poor concentration and memory impairment have developed.

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A 72 year old woman was hospitalized with speech disorder, weakness in both her arm and leg and paralysis of a gaze. The disease began suddenly when she woke up in the morning. During last week she had two attacks of transient monocular blindness, which lasted for a few seconds.

Objectively: The level of consciousness was normal, but the woman could not speak. Her face was pale, blood pressure was 180/100 mm Hg, pulse was arrhythmical. There was motor aphasia, conjugate gaze deviation to the left, right side hemiparesis and positive Babinsky's sign.

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Task

A 45 year old man was admitted to clinic. His level of consciousness was reduced, with GCS =10. He had severe headache, vomiting and weakness in both his arm and leg. The disease has developed suddenly after emotional overstrain. Also the patient has been suffering from hypertension for a long time.

Objectively: the patient's face is red. His blood pressure is 220/120 mm Hg, and his pulse is 60 beats per minute. Neck muscles rigidity is about 3 cm, Kerning symptom is positive at an angle of 100°. The left pupil is dilated and right side hemiparesis and hemihyphosthesia are observed.

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Objectively: pallor of the face, sweating of palms, postural tremor of fingers and instability in Romberg's test are observed.

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Objectively: perforation of the right tympanic septum and Bell's palsy were revealed.

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Task

The patient is a 55 year old woman. A week ago she fell down and damaged the back of the head. After that a headache and vomiting developed. Then she felt satisfactory for three days. But the day before yesterday headache appeared again and became more severe. The woman was not able to go to work yesterday. And today she has been taken to hospital by her relatives.

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Task

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Objectively: radial deviation of the hand, weak wrist extension, weak extension of all digits, normal sensory findings are observed.

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Task

A 56-year-old female was hospitalized with complaints of burning pain in shins and feet. For last five years she periodically felt thirsty, suffered from hunger and fatigue.

Objectively: loss of both superficial and deep sensations of the stocking type and absence of ankle reflexes. Systolic blood pressure falls down to 30 mm Hg. when she changes her position from horizontal to vertical one.

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The patient is a 45-year-old man. He complains of severe pain, numbness and tingling in the buttocks and legs, weakness in legs, and incontinence of bladder and bowels.

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- Where is the pathological object localized?
- Make a clinical diagnosis.
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Tasks for the assessment of competence "PC – 10":

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How would you comment the following CSF?

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A 45 year old man was admitted to clinic. His level of consciousness was reduced, with GCS =10. He had severe headache, vomiting and weakness in both his arm and leg. The disease has

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The patient is a 45-year-old man. He complains of severe pain, numbness and tingling in the buttocks and legs, weakness in legs, and incontinence of bladder and bowels.

These disorders evolved slowly during last 4 months.

Objectively: asymmetric flaccid paraplegia in legs, absence of both ankle and knee jerks, loss of sensation in L4-S5 dermatomes (in lower extremities and an anogenital area) are observed.

.Make an initial diagnosis and administer examination and treatment.

.What are the major types of neurogenic bladder?

Task

A male patient, after the cooling, suddenly the pain in the postero-lateral region of the right leg appears that grows after bending forwards and taking a seat (sitting down?).

Objectively: Laseg sign (stretching signs) is positive on the right side. Hypotrophy in the muscles of the feet and shins is present, the movements in the toes (fingers of the foot) are limited, a decrease of the muscle strength in the muscles of the feet and in the flexors of the shins to 4 balls, the ankle jerk tendon reflex is decreased on the right side. A decrease of all kinds of sensation on the postero-lateral region of the right shin and foot are present.

- Where is the pathological object localized?
- Make a clinical diagnosis.
- Call necessary neurophysiologic investigations methods.
- Prescribe a treatment.

Task

A male patient complains of the impossible acute pain and numbness in the left shin, sole of the foot and in the toes on the left side.

Objectively: hypotrophy in the posterior group of the shin muscles and muscles of the soles on the left side, the soles flexion in the foot and in the toes is impossible; the ankle jerk reflex is very decreased on the left side. The sensation is decreased in the posterior part of the shin, in the soles area of the foot and toes on the left side.

- .Make a clinical diagnosis.
- .Call necessary neurophysiologic investigations methods.
- . Prescribe a treatment.

Task

In a 12 old male patient after the mild pain in the shin, the weakness in the right extremities gradually developed (the foot begin to droop); in the walking often “cling “to the great tee.

Objectively: right foot droop and same deviated medially. It is present the” foot droop gait “. All kinds of sensation are decreased on the lateral border of the shin and on the lower part of the foot.

- .Where is the pathological object localized?
- .Make a clinical diagnosis.
- .Call necessary neurophysiologic investigations methods.
- . Prescribe a treatment.

Task

In a 51 old female patient after the exacerbation of the chronically odnexities on the right side the pain and numbness on the anterior part of the tight have occurred, difficulties while climbing up the stairs have appeared, taking a seat(sitting down?).

Objectively: the extension in the right shin and abduction to the stomach is limited , hypotrophy of the quadriceps muscle is present. Knee jerk reflex on the left side is intensively decreased. Wasserman sign (stretching signs) is positive. The sensation is decreased on the anterior border of the tight and in the medial region of the right shin.

- .Where is the pathological object localized?
- .Make a clinical diagnosis.
- .Call necessary neurophysiologic investigations methods.
- .Prescribe a treatment.

Task

A 38-year-old patient has been suffering from morning headache for a year. The headache decreases at daytime. During the last months the headache became severe and vomiting appeared. Over the last few weeks the weakness the left extremities developed.

Objectively: papilledema and left-side hemiparesis are observed.

- Make an initial diagnosis. What is the future examination.

Task

The patient is a 45-year-old man. Relatives noticed the changes in his behavior: inappropriate humor, impaired ability to judgments, gait abnormalities and urinary incontinence. The patient complains of constant headache and vomiting which begins each morning before he rise from bed.

Objectively: inappropriate behavior, loss of smell sense and papilledema were revealed. Gait was noticed to be without any signs of cerebellar ataxia.

- Make an initial diagnosis. Administer the examination.

Task

The 48-year-old woman complains of headaches, fatigue, muscular pains, vision disturbances and amenorrhea. She notes that she is not able longer to put on rings that used to fit and that her shoe size has progressively increased.

Objectively: enlarged hands and feet, prominent supraorbital ridges, protruded mandible, separated teeth and thick lips, enlarged tongue. Bitemporal hemianopsia.

- Make an initial diagnosis. Administer the examination.

Task

The 46-year-old woman has been suffering from progressive unilateral right side loss of hearing for two years. Tinnitus, unstable gait and systemic dizziness appeared half a year ago. Facial numbness and facial weakness developed two weeks ago.

Objectively: papilledema, nystagmus, right side deafness, facial weakness on the right side, intentional tremor and ataxic gait were observed.

.Make an initial diagnosis. Administer the examination.

Task

A 45-year-old woman complains of pain and paresthesias in the left side of the thorax and weakness in the left leg.

Pain appeared two months ago. Her doctor made a diagnosis of “osteochondrosis” and administered anti-inflammatory drugs and physiotherapy. However, pains were growing worse, aggravating at coughing, sneezing and movements of the trunk. The pains were unbearable when the woman was lying down. Last week weakness in her left leg appeared.

Objectively: left leg weakness associated with spasticity, high tendon reflexes and positive Babinsky’s symptom was revealed. Decreased pain sensation from the right rib arc to the heel and decreased proprioceptive sensation in the left leg were also observed. Tenderness when tapped over the Th6 spinous process was present.

Name the syndrome. Make an initial diagnosis. Administer the examination

4.3. Questions for colloquiums, interviews (*specify the competence code*):

4.4. Tasks (assessment tools) for the exam

The full package of examination tasks/tasks is given (*specify the competence code*):

5. The content of the assessment tools of mid-term assessment

Mid-term assessment is carried out in the form of a credit

Final test in neurology: <https://sdo.pimunn.net/mod/quiz/view.php?id=195736>

5.1 The list of control tasks and other materials necessary for the assessment of knowledge, skills and work experience (*the teacher indicates only those tasks and other materials that are used within the framework of this discipline*)

5.1.1. Questions for the discipline exam _____ (*if an exam is provided*)

Question	Competence code (according to the WPD)

5.1.2. Questions for the credit in the discipline *Neurology*

Question	Competence code (according to the WPD)
Voluntary motor control. Pyramidal pathways. Upper motor neuron syndrome	GPC9
Upper motoneuron paralysis. Symptoms and signs	GPC9
Signs of lower motoneuron paralysis	GPC9
The upper and lower limbs motor neurological examination. Examination of tendon and skin reflexes.	GPC9
Extrapyramidal system. The structures and functions. Primary and secondary Parkinson's	GPC9

syndrome.	
Extrapyramidal system. The structures and functions. Hyperkinesias.	<i>GPC9</i>
Primary and secondary parkinsonism. Etiology. Primary parkinsonism (Parkinson's disease)	<i>GPC9</i>
Cerebellum. Signs of the lesion	<i>GPC9</i>
Trigeminal neuralgia.	<i>GPC9</i>
Examination of coordination. Types of ataxias (cerebellar, sensitive, vestibular)	<i>GPC9</i>
Gait disorders. The gait in hemiparesis, upper motor neuron paraparesis, parkinsonism, cerebellar ataxia, sensory ataxia, chorea, muscular dystrophy, lower motor neuron paraparesis.	<i>GPC9</i>
Sensation. Pathways	<i>GPC9</i>
Clinical examination of the 5th cranial nerve	<i>GPC9</i>
Cranial nerve 7. Clinical examination	<i>GPC9</i>
Facial nerve neuropathy. Bell's palsy symptoms. Diagnostic. Treatment	<i>GPC9</i>
Cranial nerves 9, 10, 11, 12. Clinical examination	<i>GPC9</i>
Bulbar and pseudobulbar paralysis. Symptoms and signs.	<i>GPC9</i>
Agnosia. Apraxia. Aphasia Classification. Clinical signs. Diagnosis, differential diagnosis	<i>GPC9</i>
The brain's frontal lobe. Syndromes of lesions	<i>GPC9</i>
Occipital lobe lesions. Clinical signs	<i>GPC9</i>
Parietal lobe lesions. Clinical signs	<i>GPC9</i>
Temporal lobe lesions. Clinical signs	<i>GPC9</i>

Lumbar puncture. Indications, contraindications. Cerebrospinal fluid examination	<i>GPC9</i>
Blood supply of the brain (circle of Willis). Occlusion of the middle cerebral artery. Clinical signs	<i>GPC9</i>
Blood supply of the brain (circle of Willis). The vertebral-basilar system. Signs of posterior circulation transient ischemic attacks and strokes. Signs of occlusion of arteria cerebri posterior	<i>GPC9</i>
Carotid arterial system. Total and partial anterior circulation infarcts. Symptoms and signs. Diagnostic. Emergency treatment	<i>GPC9</i>
Transient ischemic attack. Definition. Anterior circulation TIAs and posterior circulation TIAs symptoms. Diagnosis	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Ischemic stroke. Anterior circulation and posterior circulation infarcts. Symptoms, diagnosis. Treatment.	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Primary and secondary prevention of ischemic stroke and TIA	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Cerebral haemorrhage. Etiology. Symptoms and signs. Diagnostic test. Urgent medical care and treatment	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Subarachnoid haemorrhage. Etiology, symptoms and signs. Diagnostic test. Urgent medical care and treatment	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Signs of meningeal irritation. Clinical examination	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Viral meningitis. Etiology. Symptoms and signs. Diagnosis. Differential diagnosis. Treatment	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Bacterial meningitis. Classification. Symptoms and	<i>UK8, GPC6, GPC8, GPC9, PC10</i>

signs. Cerebrospinal fluid examination. Diagnosis. Differential diagnosis. Treatment	
Changes of the cerebrospinal fluid in meningitis (bacterial, viral, tuberculosis meningitis)	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Tuberculosis meningitis. Symptoms and signs. Cerebrospinal fluid examination. Diagnosis. Treatment.	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Viral encephalitis. Classifications. Herpes simplex encephalitis. Symptoms and signs. Diagnosis. Treatment	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Status epilepticus. Treatment	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Brain tumor. General symptoms and signs. Diagnosis. Differential diagnosis	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Tumors of the pituitary gland. Classification. Symptoms and signs. Diagnosis	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Dislocation syndrome. Transtentorial and tonsillar herniation, (downward cerebellar herniation)	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Spinal tumors. Classification. Extra- and intradural spinal tumors. Symptoms and signs.	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Traumatic head injury. Classification. Cerebral concussion. Contusion. Diffuse axonal injury	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Ulnar nerve injury. Symptoms and signs. Diagnosis	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Median nerve injury. Symptoms and signs. Carpal tunnel syndrome. Diagnosis. Treatment.	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Radial nerve injury. Symptoms and signs. Diagnosis. Treatment	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Injury of brachial plexus. Symptoms and signs	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Femoral nerve. Signs of the lesion	<i>UK8, GPC6, GPC8, GPC9, PC10</i>

Lumbar and sacral radiculopathy. Symptoms and signs. Diagnosis	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
S1 radiculopathy. Symptoms and signs. Diagnostics. Treatment.	<i>UK8, GPC6, GPC8, GPC9, PC10</i>
Damage to the common peroneal nerve. Symptoms and signs	<i>UK8, GPC6, GPC8, GPC9, PC10</i>

5.1.3. The subject of term papers (*if provided by the curriculum*)

1.
2.
3.
4.
5.
6.
25.

Coursework as an element of an academic discipline should contribute to the formation of competencies provided for in the competence matrix for this discipline and specified in the WPD.

6. Criteria for evaluating learning outcomes

Learning outcomes	Evaluation criteria	
	Not passed	Passed
Completeness of knowledge	The level of knowledge is below the minimum requirements. There were bad mistakes.	The level of knowledge in the volume corresponding to the training program. Minor mistakes may be made
Availability of skills	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes.	Basic skills are demonstrated. Typical tasks have been solved, all tasks have been completed. Minor mistakes may be made.
Availability of skills (possession of experience)	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes.	Basic skills in solving standard tasks are demonstrated. Minor mistakes may be made.
Motivation (personal attitude)	Educational activity and motivation are poorly expressed, there is no willingness to solve the tasks qualitatively	Educational activity and motivation are manifested, readiness to perform assigned tasks is demonstrated.
Characteristics of competence formation*	The competence is not fully formed. The available knowledge and skills are not enough to solve practical (professional) tasks. Repeated training is required	The competence developed meets the requirements. The available knowledge, skills and motivation are generally sufficient to solve practical (professional) tasks.
The level of competence formation*	Low	Medium/High

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