MINISTRY OF PUBLIC HEALTH OF UKRAINE
NATIONAL MEDICAL UNIVERSITY NAMED AFTER O.O.BOGOMOLETS

Department (cycle methodical commission) _Neurology

«APPROVE»
Executive rector
Prof.____O.Vlasenko

"___"_____2021

.

WORK TEACHING PROGRAM ON "NEUROLOGICAL DISEASES INCLUDING NEUROSTOMATOLOGY"

training of specialists of second (master's) level of higher education

area of experise: «Health Care» - 22

speciality: «Dentistry» - 221

2021

Work teaching program “Neurology including neurostomatology” for students on speciality “Stomatology” was approved by staff of the Department of Neurology of O.O.Bogomolets National Medical University: chief of the Department Sokolova L I., doc. Illyash T.I., doc. Symonenko H.H.

Work teaching program was approved on methodical meeting of Department of Neurology 30.08.2021. протокол № 1.

Chief of the department,
professor L.I.Sokolova

The program is discussed and approved on the cycle methodological commission in therapeutic disciplines __.__. 202_ г. протокол № __.

Chief of the cycle
methodological commission
professor O.B.Yaremenko

1. Description of educational discipline

Name of indicators	**Area of knowledge, direction of training, educational and qualification level**	**Characteristics of the discipline**
		Full-time education
Number of credits - 1	Area of expertise: 22 "Health care"	Normative
	Normative Direction of training: "Stomatology"	
Modules -1 Content modules - 1	Specialty: 221 dentistry	IV year of education
Individual research assignment		Lections – 3 h Practical employment - 22 h Self-operation of the robot – 5 h
Total hours – 30 h		
Weekly hours for the daytime form of study: classroom - 25, student's independent work - 5	Second (magisters) educational qualification level in higher medical institutions	Type of control - final control (FC)

2. The aim and tasks of the educational discipline

Aim: to study the main symptoms and syndromes of the nervous system, determine the etiological factors and pathogenetic mechanisms of the development of major neuro-dental diseases, and plan the tactics of neuro-dental patients management.

З**адания:**

- to identify the leading symptoms and syndromes in the case of the most common neurological pathology;
- to provide emergency medical care in case of urgent conditions in the clinic of nerve diseases;
- to conduct neurological examination of patients;
- to analyze data of neuro-dental examinations of patients;
- to plan the tactics of dental patients with neurological pathology;
- to make the differential diagnostics of neurostimologic diseases;
- to establish a preliminary clinical diagnosis of neuro-dental pathology.

As a result of studying the academic discipline, the student must
know: basic neuroanatomical data, variants of disorders of the sensory, motor and coordinating functions of the nervous system, the main neurostomatological diseases;

be able to: reveal sensory, motor and coordination disorders, diagnose neurostomatological diseases, provide emergency care to urgent neurological patients.

3. Program of educational discipline

Content module 1. Neurology including neurostomatology

Specific aims:

1. To determine the place of neurology as a science, the field of practical medicine and the subject.
2. To interpret the concept of reception, clinical classification of sensitivity, types of sensitive disorders, types of sensitive violations of the face and oral cavity.
3. To explain the symptoms of central and peripheral paresis.
4. To interpret motor disturbances in case of damage to the cortical-nuclear pathway, cranial nerves and motor cranial nerves.
5. To analyze the anatomical and physiological features of the cerebellum and its lesion syndromes.
6. To interpret the features of ischemic and hemorrhagic stroke, the principles of prevention of acute cerebrovascular disorders.
7. To interpret the features of epileptic and non-epileptic paroxysmal states.
8. To learn clinical manifestations and principles of urgent medical care making in case of meningitis and encephalitis.
9. To determine the anatomical-physiological features and pathology of the trigeminal nerve.
10. To interpret anatomical features and pathological manifestations of facial nerve damage.
11. To interpret the pathology of IX-XII pairs of cranial nerves, bulbar and pseudobulbar syndromes.
12. To learn skills of research of functions of an autonomous nervous system.
13. To analyze the main types of prozopalgias and to provide urgent medical care.
14. Detect neuralgia and neuropathy of the trigeminal nerve and its branches.
15. To interpret syndromes of defeat of the facial, glossopharingeal, vagal and sublingual nerves.
16. Detect vegetative prozopalgias.
17. To interpret other neurological diseases of the person.
18. To treat neuroimaging, ultrasound and electrophysiological methods of examination of neurological patients.
19. To learn principles of emergency in the case of urgent states of neurological genesis, which can meet in the practical work of the dentist.

Topic 1.

Pathology of sensation function of the Nervous system. Classification of sensation. Methods of sensory function examination. Types and kinds of sensor disorders.

Topic 2.

Pathology of reflex-motor function of the Nervous system. Methods of reflex-motor system examination. Central and peripheral paralyses.

Topic 3.

Pathology of I, II, III, IV, VI cranial nerves Methods of vision fields and eye-balls movements examination. Vegetative innervation of eye. Syndromes of somatic and autonomic innervation of eye.

Topic 4.

Pathology of V, VII, VIII cranial nerves. Methods examination of sensation on face and movements of mimic muscles.

Topic 5.

Pathology of IX-XII cranial nerves. Methods of examination of IX-XII cranial nerves. Bulbar and pseudo-bulbar syndrome.

Topic 6.

Neurostomatological diseases. Prosopalgias of neuropathic genesis. Neuralgia of trigeminal and glossopharyngeal nerve. Vegetative prosopalgias.

Topic 7.

Prosopalgias of other genesis (muscular, vessel, somatic, psychogenic). Giant-cell arteritis. Myo-fascial pain syndrome of face. Principles of treatment.

.

Topic 8.

Meningeal syndrome. Secondary purulent meningitis. Principles of diagnostics. Emergency.

Topic 9.

Ischemic and hemorrhagic strokes. Etiology. Pathogenesis. Diagnostics. Emergency.

Topic 10.

Epilepsy. Epileptic status. Clinics. Emergency.

Topic 11.

Pathology of the autonomic nervous system. Vegetative disorders on face.

Topic 12.

Instrumental methods of investigation in neurology: ultrasound (USD, Echo-ES), methods of neuro visualization (CT, MRI of the brain, electro physiological (EEG, ENMG).

Topic 13.

Pathology of coordination function of the Nervous system. Types of ataxias.

4. Structure of educational discipline

Name of semantic modules and topics	Hours					
	general	including				
		l	p	lab	ind	ICP
1	2	3	4	5	6	7
Content module 1. Neurology including neurostomatology						
Topic 1. Pathology of sensation function of the Nervous system. Classification of sensation. Methods of sensory function examination. Types and kinds of sensor disorders.			2			
Topic 2. Pathology of reflex-motor function of the Nervous system. Methods of reflex-motor system examination. Central and peripheral paralyses.			2			
Topic 3. Pathology of I, II, III, IV, VI cranial nerves Methods of vision fields and eye-balls movements examination. Vegetative innervation of eye. Syndromes of somatic and autonomic innervation of eye.			2			
Topic 4. Pathology of V, VII, VIII cranial nerves. Methods examination of sensation on face and movements of mimic muscles.			2			
Topic 5. Pathology of IX-XII cranial nerves. Methods of examination of IX-XII cranial nerves. Bulbar and pseudo-bulbar syndrome.			2			
Topic 6. Neurostomatological diseases. Prosopalgias of neuropathic genesis. Neuralgia of trigeminal and glossopharyngeal nerve. Vegetative prosopalgias.		2	3			
Topic 7. Prosopalgias of other genesis (muscular, vessel, somatic, psychogenic).		1	2			

Giant-cell arteritis. Myo-fascial pain syndrome of face. Principles of treatment.						
Topic 8. Meningeal syndrome. Secondary purulent meningitis. Principles of diagnostics. Emergency.			2			
Topic 9. Ischemic and hemorrhagic strokes. Etiology. Pathogenesis. Diagnostics. Emergency.			2			
Topic 10. Epilepsy. Epileptic status. Clinics. Emergency.			1			
Topic 11. Pathology of the autonomic nervous system. Vegetative disorders on face.						2
Topic 12. Instrumental methods of investigation in neurology: ultrasound (USD, Echo-ES), methods of neuro visualization (CT, MRI of the brain, electro physiological (EEG, ENMG).						2
Topic 13. Pathology of coordination function of the Nervous system. Types of ataxias.						1
Final control			2			
Together with content module 1		**3**	**22**			**5**

5. Themes of lectures

№/№	Theme	Hours
1	Neurostomatological diseases caused by damage of trigeminal nerve system	1
2	Neurostomatological diseases caused by damage of vegetative ganglia, facial nerve and nerves of bulbar group	1
3	Facial pain of another genesis	1
Total		**3**

6. Themes of practical studies

Day of study	№ Of study	Topics	Hours

I	1.	Pathology of sensation function of the Nervous system. Classification of sensation. Methods of sensory function examination. Types and kinds of sensor disorders.	2
	2.	Pathology of reflex-motor function of the Nervous system. Methods of reflex-motor system examination. Central and peripheral paralyses.	2
II	3.	Pathology of I, II, III, IV, VI cranial nerves Methods of vision fields and eye-balls movements examination. Vegetative innervation of eye. Syndromes of somatic and autonomic innervation of eye.	2
	4.	Pathology of V, VII, VIII cranial nerves. Methods examination of sensation on face and movements of mimic muscles.	2
III	5.	Pathology of IX-XII cranial nerves. Methods of examination of IX-XII cranial nerves. Bulbar and pseudo-bulbar syndrome.	2
	6.	Neurostomatological diseases. Prosopalgias of neuropathic genesis. Neuralgia of trigeminal and glossopharyngeal nerve. Vegetative prosopalgias.	3
IV	7.	Prosopalgias of other genesis (muscular, vessel, somatic, psychogenic). Giant-cell arteritis. Myo-fascial pain syndrome of face. Principles of treatment.	2
	8.	Meningeal syndrome. Secondary purulent meningitis. Principles of diagnostics. Emergency.	2
V	9.	Ischemic and hemorrhagic strokes. Etiology. Pathogenesis. Diagnostics. Emergency.	2
	10.	Epilepsy. Epileptic status. Clinics. Emergency.	1
	11.	Final control	2
Total			**22**

7. Individual self-preparation (ISP)

№	Topics	Hours	Type of control
1.	Pathology of the autonomic nervous system. Vegetative disorders on face.	2	The final control
2.	Instrumental methods of investigation in neurology: ultrasound (USD, Echo-ES), methods of neuro visualization (CT, MRI of the brain, electro physiological (EEG, ENMG).	2	The final control
3.	Pathology of coordination function of the Nervous system. Types of ataxias.	1	The final control

Total	**5**	

8. **Individual tasks**

The number of points for different types of individual independent work of a student depends on its volume and significance, but in total no more than 10 points. These points are added to the sum of the points the student has earned for the current academic activity.

9. **Methods of education**

According to the program there are 30 pedagogical hours, including 3 hours of lectures, 22 hours for practical classes, 5 hours for the individual self-preparation extra-curricular work of students (ISP). The discipline is taught at the IV year during the autumn-winter and spring-summer semesters.

The discipline program consists of one content module. Students' academic load is described in ECTS credits, which are credited to students in case of successful mastering of the course as a whole.

Types of training in accordance with the curriculum are: a) lectures, b) practical classes, c) independent work of students (IWS).

According to the Order on NMU №439 от 19.08.2020, studying of the discipline in 2020-2021 s.y. is made on mixt auditory-distant form of education in conditions of adaptation quarantine. Form of study in 2021-2022 will depend on the epidemiological situation in the country.

The lectures were held for educational groups, distantly to all students of the Faculty of Dentistry, who simultaneously studied at the department. Lectures in 2021-2022 s.y. will depend on the epidemiological situation in the country.

In case of continuation of quarantine in 2021-2022, practical training sessions will be conducted in the classroom and remotely, depending on the epidemiological situation in the city. In such conditions, it is planned to conduct at least one practical lesson lasting 1 hour each in the wards near the patient's bed with 3 students in order to master the methods of examining a neurological patient and self-supervision of patients. For this, a schedule of students' stay in the wards in several shifts will be created for each group of students.

Structure of education discipline	**Hours of education**				**Year of education**	**Type of control**
	General	**Auditory**		**ISP**		
		Lectures	Practical studies			
	30	**3**	**22**	**5**	**4**	

Credits of ECTS	**1,0**	**0,1**	**0,7**	**0,2**		
Content module 1	**30 h / 1,0 credit ECTS**	**3**	**22**	**5**		**Current and final**

Notes: 1 credit ECTS – 30 ч.
Auditory – 84%, ISP – 16%

10. Forms of control

Forms of control and evaluation system are carried out in accordance with the requirements of the program of discipline and the instruction on the system of evaluation of students' educational activity in the credit-module system of educational process organization, approved by the Ministry of Health of Ukraine (2005).

Current control is carried out at each practical lesson in accordance with the specific goals of the topic and during the individual work of the teacher with the student for those topics that the student studies independently and they are not included in the structure of the practical lesson. To assess the level of training of students, the following are used: oral questioning, written testing, solving situational problems.

The maximum number of points that are assigned to students during mastering the module (credit) is 200.

When mastering each topic of the course for the current educational activity, the student is given marks for a 4-point traditional scale, which are then converted into points depending on the total number of topics. The program used the following system for converting the traditional grading system into points:

Tradition mark	***Conversion to points***
“5”	16
“4”	13
“3”	9
“2”	0

The maximum amount that a student can gain while studying a discipline is 80 points. It is calculated by multiplying the number of points that correspond to the "5" rating by the total number of topics with the addition of points for individual self-preparation work.

Evaluation of individual self-preparation of students (Individual Tasks):

Assessment of students' independent work, provided along with classroom work, is carried out during the resulting modular control.

The final control:

The final control is carried out after the completion of the study of all the topics of the module at the last control lesson.

Students who attended at least 75% of classroom lessons in the discipline are allowed to the resulting modular control.

The form of the final control is standardized and includes: control of theoretical and practical training (computer testing etc). The maximum score for the resulting modular control is 120.

The final control is considered to be passed if the student scored at least 111 points.

Objectivity of evaluation of students' educational activity should be checked by statistical methods (correlation coefficient between current progress and results of final control).

Converting the number of marks from the discipline into the assessment on the ECTS and 4-point scale (traditional).

The number of points from the discipline is converted to the ECTS scale as follows:

Mark of ECTS	The statistical indicator
A	The best 10% of students
B	Next 25% of students
C	Next 30% of students
D	Next 25% of students
E	Last 10% of students

The percentage of students is determined by the voters for students of this course within the corresponding specialty.

The number of points in a discipline that is enrolled to students is converted into the ECTS scale as follows:

Mark of ECTS and national scale	Mark of 4-points scale
A (excellent)	**170-200** (excellent perormance)
B (good)	**155-169** (very good)
C (good)	**140-154** (good)
D (satisfactory)	**125-139** (satisfactory)
E (satisfactory)	**111-124** (enough)
FX (unsatisfactory)	**60-110** (unsatisfactory, with the possibility of re-delivery)

F (unsatisfactory)	**1-59** (unsatisfactory, with re0study of the discipline)

The grade for the discipline is equal to the sum of points received for current control and the resulting modular control.

11. Distribution of points that can be collected by students

Current testing	***Points***
Topic 1 Topic 2	16
Topic 3 Topic 4	16
Topic 5 Topic 6	16
Topic 7 Topic 8	16
Topic 9 Topic 10	16
Maximum points for current testing	**80**

12. Methodological support

Control materials for the preparatory stage of the lesson (questions for a formal survey, test tasks), typical clinical tasks, professional algorithms for the formation of practical skills and abilities on the topic of the lesson. Textbooks, teaching aids, diagrams, videos.

13. Recommended literature

Basic

1. Григорова І.А., Соколова Л.І. та ін. Неврологія. – К.: Медицина, 2014.-640 с.
2. Неврологія з нейростоматологією : навч. посіб. / Л.І. Соколова, О.А. Мяловицька, Т.І. Ілляш та ін. ; за ред. Л.І. Соколової, Т.І. Ілляш. — К. : ВСВ «Медицина», 2018. — 128 с.
3. Neurology: Textbook for stud. of higher med. Institutions // L. Sokolova, O. Myalovitska, V. Krylova, T.Illash, V.Melnyk; ed. by Prof. L. Sokolova.— Vinnytsia : Nova Knyha, 2012. — 275 p.

Additional

1. Неврологія (під ред. С.М.Віничука). – К.: Здоров'я, 2008, - 662 с.
2. Неврология (под ред. С.М.Виничука). – К.: Здоров'я, 2010.- 659 с.
3. Грицай Н.М., Кобзиста Н.О. Нейростоматологія.-К.: Здоров’я, 2001.-144 с.
4. Евзельман М. А. Неврология. Нейростоматологические синдромы : учебное пособие / М. А. Евзельман, Е. В. Митяева. – Орёл : ОГУ имени И. С. Тургенева, 2019. – 111 с.

5. Куряченко Ю.Т. Нейростоматологические заболевания и синдромы: клиника, диагностика, основные принципы лечения.- Новосибирск, 2013.- 78 с.
6. Суслина З. А., Пирадов М. А., Максимова М. Ю. Неврология**:** Московский медико-стоматологический ун-т имени А.И.Евдокимова. — М.: «Практика», 2015. — 392 с.
7. Триумфов А.В. Топическая диагностика заболеваний нервной системы. – М.: Медицина, 2004.-370 с.
8. Яворская Е.С. Болевые и парестетические сидромы челюстно-лицевой области: Методическое пособие.- К: Наукова думка, 2007.- 87 с.
9. Mumenthaler M.,Heinrich Mattle, Fundamentals of Neurology.- Thieme, 2006.-306 p.
10. L. Bendtsen et Al EAN Guideline on Trigeminal Neuralgia // European Journal of Neurology, EAN Guidelines/CME Article, 2020. – P.831-849.

Informational source

https://nmuofficial.com/zagalni-vidomosti/kafedri/kafedra-nevrologiyi/