

Odessa National Medical University
Department of Neurology and Neurosurgery

Syllabus of the academic discipline
"Modern approaches to the diagnosis, treatment and prevention of cerebral vascular pathology"

Amount	4 credits / 120 hours
Semester, year teaching	III semester, 2 year of study
Days, time, place	According to the schedule in the neurology and neurosurgery classroom. St. Tinista, 8
Teacher(s)	Son Anatoliy Serhiyovych , MD, PhD, professor, head of the department of neurology and neurosurgery, Solodovnikova Yulia Oleksandrivna, MD, PhD, associate professor of the department of neurology and neurosurgery
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Workplace	Office of the head of the department of neurology and neurosurgery. St. Tinista, 8
Consultations	<i>Face-to-face consultations</i> : Tuesday - from 2:00 p.m. to 4:00 p.m.; Thursday - from 9:00 a.m until 13.00 <i>Online consultations</i> : Tuesday - from 14.00 to 16.00; Thursday - from 9.00 to 13.00 <i>Microsoft Teams</i> or by <i>Telegram/Viber</i>

COMMUNICATION

Communication with graduate students is carried out by face-to-face meetings. In the case of transition to distance learning, communication with graduate students will be carried out using e-mail and programs: Microsoft Teams, Telegram and Viber.

ANNOTATION COURSE

Subject of academic discipline

The subject of studying academic discipline "Modern approaches to the diagnosis, treatment and prevention of vascular pathology of the brain" is modern approaches to diagnosis, treatment and prevention of vascular pathology of the brain.

Course prerequisites and post-requisites (The place of the discipline in the educational program)

The study of the academic discipline "Modern approaches to the diagnosis, treatment and prevention of vascular pathology of the brain" is based on previous (providing) disciplines: "Neurology" (student course), "Neurosurgery" (student course), as well as specialty disciplines.

The purpose of the course

The purpose of teaching the academic discipline "Modern approaches to the diagnosis, treatment and prevention of vascular pathology of the brain" is to acquire and deepen a complex of knowledge, abilities, skills and other competencies sufficient for the production of new ideas, solving complex tasks from this discipline, mastering the methodology of scientific and pedagogical activity, as well as carrying out own scientific research that solves an actual scientific task in neurology, the results of which have scientific novelty, theoretical and practical significance.

Tasks of the discipline:

- to determine new scientific directions, theoretical and practical problems of vascular pathology;
- to know the terminology of vascular neurology; learn the latest methods of research and treatment;
- determine etiological and pathogenetic factors of vascular diseases in neurology;
- to analyze the typical and atypical clinical picture of vascular diseases;
- draw up a patient examination plan and analyze laboratory and instrumental examination data for vascular diseases;
- carry out differential diagnosis, substantiate and formulate a diagnosis of vascular diseases;
- to determine management tactics (recommendations regarding regimen, diet, treatment) of a patient with vascular diseases;
- to diagnose and provide medical care for emergency conditions in neurology;
- carry out primary and secondary prevention, rehabilitation for vascular diseases.

Expected results

to the results of the study of the discipline, graduate students have to

know:

- history of development and current state of scientific knowledge in neurology;
- etiology, pathogenesis, classification, clinical manifestations of cerebral vascular pathology;
- modern diagnostic standards, differential diagnosis, treatment, emergency care, prevention, prognosis for vascular diseases of the brain and their complications.

be able:

- determine the need for additional knowledge in the direction of scientific research, and formulate research questions, generate scientific hypotheses in the field of medicine, in particular internal medicine, with an emphasis on vascular pathology of the brain;
- develop and manage scientific projects in the field of medicine, in particular neurology, with an emphasis on vascular pathology of the brain;
- choose methods and criteria for evaluating the investigated phenomena and processes in the field of medicine and neurology, with an emphasis on vascular pathology of the brain;
- to have modern methods of scientific research, in particular in the field of vascular pathology of the brain;
- carry out a correct analysis and generalization of the results of scientific research, in particular in the field of vascular pathology of the brain;
- interpret the possibilities and limitations of research in the field of vascular pathology of the brain, its role in society;

- to introduce new knowledge (scientific data) on vascular pathology of the brain into the educational process and health care practice;
- publish the results of scientific research on vascular pathology in oral and written form in accordance with national and international standards;
- to organize and implement pedagogical activities in higher medical education.

COURSE DESCRIPTION

Forms and methods of education

The course is taught in the form of lectures (20 hours) and seminar classes (40 hours), as well as through the organization of independent work of graduate students (60 hours); total - 120 hours (4 credits).

The study of the discipline is implemented on the basis of the following teaching methods:

- according to the dominant means of education: verbal, visual;
- drawing up graphic schemes;
- solving creative tasks;
- blitz survey;
- performance of written tasks;
- individual control interview;
- logical exercises;
- role-playing (business) games;
- situational tasks ("case method");
- problem-based teaching method, which is aimed at forming students' capacity for dialogue and the ability to defend their own opinion;
- the "brainstorming" learning method, which encourages students to show a creative approach and find alternative methods of solving proposed tasks through free expression of thoughts.

Content of the academic discipline

Topic 1. Relevance of the problem of vascular pathology of the central nervous system. Etiology, pathogenesis and risk factors of acute disorders of cerebral circulation.

Topic 2. Blood supply to the brain. Symptoms of central hemodynamic disorders in various vascular basins.

Topic 3. Clinic, diagnosis, treatment and prognosis of strokes.

Topic 4. Topical diagnostics. Methods of detection of CVC. Neuroimaging of the central nervous system.

Topic 5. Disturbance of consciousness, coma, differential diagnosis of comatose states. Brain death criteria.

Topic 6. Peculiarities of clinical manifestations of transient disorders of cerebral blood circulation. Transient ischemic attacks.

Topic 7. Medical rehabilitation of post-stroke patients using evidence-based protocols.

Topic 8. Prevention of cerebrovascular pathology according to evidence-based recommendations.

Topic 9. Modern approaches to the treatment of acute and chronic disorders of cerebral circulation.

List of recommended literature:

a) main:

1. Неврологія: навчальний посібник / [І.А.Григорова, Л.І. Соколова, Р.Д. Герасимчук, А.С. Сон, та ін.] за редакцією І.А. Григорової, Л. І. Соколової - 3-є видання – Київ, ВСВ «Медицина», 2020 р. – 640 с.

2. Топічна діагностика патології нервової системи. Алгоритми діагностичного пошуку. Шкробот С.І., Салій З.В., Бударна О.Ю. Укрмедкнига, 2018. – 156 с.

3. Методи обстеження неврологічного хворого: навч. посібник / за ред. Л.І.Соколової, Т.І.Ілляш. – 2-ге вид. – Київ: Медицина, 2020. – 143 с.

4. Медицина невідкладних станів. Екстрена(швидка) медична допомога: підручник / І.С. Зозуля, В.І. Боброва, Г.Г. Рошин та інші / за ред. І.С. Зозулі. - 3-є видання, пер. та доп. - Київ. - ВСВ «Медицина», 2017. – 960 с.

5. Негрич Т.І., Боженко Н.Л., Матвієнко Ю.Щ. Ішемічний інсульт: вторинна стаціонарна допомога: навч. посіб. Львів: ЛНМУ імені Данила Галицького, 2019. – 160 с.

b) additional:

1. Боженко М.І., Негрич Т.І., Боженко Н.Л., Негрич Н.О. Головний біль. Навчальний посібник.-К.: Видавничий дім «Медкнига», 2019. – 48 с.

2. Медицина за Девідсоном: принципи і практика: 23-є видання: у 3 томах. Том 1 / за ред. Стюарта Г. Ралстона, Яна Д. Пенмана, Марка В.Дж. Стрекена, Річарда П. Гобсона.- «Медицина», 2020. - 258 с.

3. Медицина за Девідсоном: принципи і практика: 23-є видання: у 3 томах. Том 2 / за ред. Стюарта Г. Ралстона, Яна Д. Пенмана, Марка В.Дж. Стрекена, Річарда П. Гобсона.- «Медицина», 2021. - 778 с

4. Медицина за Девідсоном: принципи і практика: 23-є видання: у 3 томах. Том 3 / за ред. Стюарта Г. Ралстона, Яна Д. Пенмана, Марка В.Дж. Стрекена, Річарда П. Гобсона.- «Медицина», 2021. - 642 с.

c) electronic information resources:

1. Medical Books On-line Library (Neurology) – free download

<http://medbookshelf.info/category/neurology/>

2. Клінічні настанови з неврології. (Наказ МОЗ України N 487 від 17.08.2007)

<https://zakon.rada.gov.ua/rada/show/v0487282-07#Text>

3. Міністерство охорони здоров'я України

<http://moz.gov.ua>

4. Державний експертний центр МОЗ України

www.dec.gov.ua/mtd/home/

EVALUATION

Current control is carried out at seminar classes in accordance with formulated tasks for each topic. When evaluating educational activities, preference is given to standardized control methods: oral survey, structured written works, discussions, role-playing games, reports. When mastering each topic for the current educational activity, the student is given grades on a 4-point traditional scale. The current academic performance is calculated as the average current score, i.e. the arithmetic average of all grades received by the graduate student (student) on a traditional scale, rounded to 2 (two) decimal places, for example 4.75.

Assessment of current discipline control:

The value of the "**excellent**" rating: the graduate student shows special creative abilities, knows how to acquire knowledge independently, finds and processes the necessary information without the help of a teacher, knows how to use the acquired knowledge and skills to solve problems, is able to produce innovative ways of solving problems, convincingly argues answers, independently reveals his own gifts and inclinations.

The meaning of the grade "**good**": the graduate student has a good command of the studied material, applies it in practice, solves exercises and problems in standard situations, independently corrects the mistakes made, the number of which is insignificant.

The value of the rating is "**satisfactory**": the graduate student is able to master a significant part of the theoretical material, but mainly in a reproductive form, demonstrates knowledge and understanding of the main provisions, can analyze the educational material with the help of the teacher, correct errors, among which there are a significant number of essential ones.

The value of the rating is "**unsatisfactory**": the graduate student has mastered the material at the level of individual fragments, which constitute a small part of the educational material.

Only those graduate students who have no academic debt and have an average score for the current educational activity of at least 3.00 are admitted to the final certification.

Forms and methods of final control

The final control in the discipline "Modern approaches to the diagnosis, treatment and prevention of vascular pathology of the brain" is an exam.

The grade for the discipline is the arithmetic average of two components:

- 1) average current score as the arithmetic average of all current grades;
- 2) traditional exam grade.

The obtained average grade for the discipline by multiplying it by 40 (the obtained grade is rounded to whole numbers) is converted into a grade on a 200-point scale, which, in turn, is converted into a traditional grade on a discipline on a 4-point scale.

GPA by discipline	Rating from the discipline on a 200-point scale	Rating from the discipline on a 4-point scale (traditional assessment)
4.62–5.0	185–200	5
3.77–4.61	151–184	4
3.0–3.76	120–150	3

Individual work

Assessment of the independent work of graduate students and applicants, which is provided for in the topic along with classroom work, is carried out during the current control of the topic in the corresponding classroom session, as well as at the final control (exam).

COURSE POLICY ("rules of the game")

Deadlines and Rescheduling Policy

Tasks must be completed on time according to the deadline. For untimely completion of the assignment, the graduate student receives an unsatisfactory grade. If the student of higher education was absent from classes for any reason, then the practice is carried out in the terms set by the teacher in accordance with the "Regulations on the Organization of the Educational Process at ONMedU" (link to the regulations on the website university <https://onmedu.edu.ua/wp-content/uploads/2020/01/osvitnij-proces.pdf>). Reassembly is carried out in accordance with the approved schedule.

Academic Integrity Policy

The policy of the educational component is based on the principles of academic integrity (link to the regulations on the university website <https://onmedu.edu.ua/wp-content/uploads/2020/07/polozhennja-pro-dobrochesnist.pdf>) and is determined by the system of requirements that the teacher presents to the applicant when studying the educational component:

- independent performance of educational tasks, tasks of current and final control of learning results (for persons with special educational needs, this requirement is applied taking into account their individual needs and capabilities);
- references to sources of information in case of use of ideas, developments, statements, information.

Attendance and Tardiness Policy

Attendance and work in classroom classes (lectures and seminar classes) is mandatory for obtaining a satisfactory grade. A graduate student is allowed to be late for no more than 10 minutes.

Mobile devices

It is permissible to use mobile devices during the lesson with the teacher's permission.

Behavior in the audience

While in the audience, the following values should be cultivated: respect for colleagues; tolerance for others; receptivity and impartiality; argumentation of agreement or disagreement with the opinion of other participants in the discussion, as well as one's own opinion; respecting the dignity of the opponent's personality during communication; compliance with the ethics of academic relationships.