

SYLLABUS
Неврология
Неврология
Neurology

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| 1. | General information about the discipline | | |
| 1.1 | Faculty/School: Medicine and Healthcare General Practice department | 1.6 | Credits (ECTS): 4 -120 hours Contact hours-100 hours |
| 1.2 | Educational program (EP): 6B10103 ЖАЛПЫ МЕДИЦИНА 6B10103 ОБЩАЯ МЕДИЦИНА 6B10103 GENERAL MEDICINE | 1.7 | <u>Prerequisites:</u> Жүйке жүйесі және неврология негіздері/ Нервная система и основы неврологии/ Nervous system and basics of neurology <u>Postrequisites:</u> Резидентура/ Резидентура/ Residentsip |
| 1.3 | Agency and year of accreditation of the EP IAAR 2021 | 1.8 | SIW/SPM/SRD (qty): 20 hours |
| 1.4 | Name of discipline: Неврология Неврология Neurology | 1.9 | SRSP/SRMP/SRDP (number): 20 hours |
| 1.5 | Discipline ID: 90578 Discipline code: Neu5318 | 1.10 | <i>The cycle of disciplines is a profile mandatory</i> |
| 2. | Description of the discipline | | |
| | Neurology is a medical specialty concerned with the study of the human nervous system and the diagnosis, treatment, and care of patients suffering from diseases of the nervous system. Neurology is a key area of medicine because the nervous system plays an important role in the functioning of the body, regulating many processes, including motor functions, sensation, as well as higher mental functions. | | |
| 3 | Purpose of the discipline | | |
| | The goal is to master the diagnostics and principles of treatment of patients with the most common neurological diseases in their typical manifestation and course and in the age aspect, using the skills of effective professional communication, interpretation of clinical symptoms and syndromes, special research data and preventive measures | | |
| 4. | Learning outcomes (LO) by discipline (3-5) | | |

| | LO disciplines | | LO according to the educational program, with which the LO is associated by discipline (LO No. from the EP passport) |
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| 1 | Know the principles of the organization of the neurological services; possess the skills of basic medical, diagnostic and preventive measures for the provision of specialized care; apply basic examination and examination skills; | Pro fici enc y lev el | 1. Collect information from patients and other sources related to the diagnosis, treatment and prevention of common and emergency conditions, including the performance of diagnostic procedures. |
| 2 | Identify the main manifestations of substance abuse disorders in the psycho-emotional sphere | Pro fici enc y lev el | Identify and interpret the clinical symptoms and syndromes, the data of laboratory and instrumental methods of research of patients with the most common diseases in their typical manifestation and course in the age aspect; interpret, analyze, evaluate, and prioritize relevant data for developing a plan for diagnosing and managing a disease, including initiating appropriate interventions. |
| 3 | Carry out the social rehabilitation of patients with substance abuse problems; carry out prevention; advise patients and their families; be able to interact effectively with the "difficult" patient | Pro fici enc y lev el | 2. Apply knowledge of the basic principles of human behavior for effective communication and therapeutic and diagnostic process in compliance with the principles of ethics and deontology; apply knowledge of the psychology of the patient, taking into account cultural characteristics and race. |
| 4 | Use the skills of current accounting and reporting medical records, including information systems; | Pro fici enc y lev el | 3. Analyze and maintain the necessary documentation and organization of documents in health care organizations; the use of modern information and digital technology, and health information systems for professional applications. |
| 5 | Demonstrate skills in the integration of knowledge and skills to ensure an individual approach in the treatment of a particular patient; make professional decisions based on the analysis of the rationality of diagnosis and the principles of evidence-based medicine; | Pro fici enc y lev el | 5. Apply clinical knowledge and skills to tailor treatment to each patient, taking into account their individual needs, with the aim of promoting health. Make professional decisions based on sound diagnosis and adherence to evidence-based and personalized medicine principles. |
| 6 | Use communication skills when working with patients, | Pro | 6. Demonstrate teamwork skills, organization, and management of the |

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| | including in emergency situations, teamwork skills, organization and management of the diagnostic and therapeutic process; | Proficiency level | diagnostic and treatment processes; effectively establish dynamic relationships between the physician and the patient that occur before, during, and after medical encounters; proficiently convey medical information in both oral and written forms to provide safe and effective care to patients; work effectively in an interprofessional/multidisciplinary team with other healthcare professionals |
| 7 | Demonstrate commitment to professional values, such as altruism, compassion, empathy, responsibility, honesty and respect for the principles of confidentiality; | Proficiency level | 7. Apply knowledge of the rights, duties, and methods of protecting the rights of both the physician and the patient, including children as patients, in professional practice; apply medical knowledge, clinical skills, and a professional approach to patient care regardless of their age, culture, faith, traditions, nationality, or lifestyle. |
| 8 | Demonstrate abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity | Proficiency level | 8. Demonstrate the need for continuing professional education and the improvement of their knowledge and skills throughout their professional activities |
| 5. | Summative assessment methods (mark (yes – no) / specify your own): | | |
| 5.1 | MCQ testing for understanding and application | 5.5 | Scientific project SSRW (student's scientific research work) |
| 5.2 | Practical skills – Miniclinical exam (MiniCex) | 5.6 | 360 score - behavior and professionalism |
| 5.3 | 3. SIW- creative task | 5.7 | Midterm control: Stage 1 - MCQ testing for understanding and application Stage 2 – passing practical skills (miniclinical exam (MiniCex)) |
| 5.4 | Medical history | 5.8 | Exam: Stage 1 - Testing on MCQ for understanding and application Stage 2 - OSCE with NP |

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| 6. | Detailed information about the discipline | | | | |
| 6.1 | Academic year: 2023-2024 | | 6.3 | Timetable (сабақ күні, уақыт): From 8.00 to 14.00 | |
| 6.2 | Semester: 10 semester | | 6.4 | Place (educational building, office, platform and link to the DOT learning meeting): City Clinical Hospital №1, Medeu first medical care centre | |
| 7. | Discipline leader | | | | |
| Position | | Full name | Department | Contact information (tel., e-mail) | Consultations before exams |
| Senior lecturer | | | General medical practice | | Before the examination session within 60 minutes |
| 8. | The content of the discipline | | | | |
| | Name of the discipline | | | Quantit y of hours | Conducting form |
| 1. | Cerebrovascular diseases. stroke and complications | | | 6 | 1. TBL 2. Work with the patient for at least 50% of the study time |
| 2. | Injuries to the brain, spinal cord and peripheral nervous system | | | 6 | 1. TBL 2. Work with the patient for at least 50% of the study time |
| 3. | Space-occupying masses of the nervous system | | | 6 | 1. TBL 2. Work with the patient for at least 50% of the study time |
| 4. | Neuroinfections Concept of viral encephalitis ADEM | | | 6 | 1. TBL 2. Work with the patient for at least 50% of the study time |
| 5. | Multiple sclerosis | | | 6 | 1. TBL 2. Work with the patient for at least 50% of the study time |
| Midterm control 1 | | Summative evaluation: 2 stages: 1-stage – MCQ testing for understanding and application - 50% 2-stage – mini clinical exam (MiniCex) - 50% | | | |

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| 6. | Autoimmune diseases - myasthenia gravis | | 1. TBL 2. Work with the patient for at least 50% of the study time |
| 7. | Epilepsy and epileptic encephalopathies | | 1. TBL 2. Work with the patient for at least 50% of the study time |
| 8. | hereditary neuromuscular diseases | | 1. TBL 2. Work with the patient for at least 50% of the study time |
| 9. | Parkinson's disease. Parkinsonism syndrome | | 1. TBL 2. Work with the patient for at least 50% of the study time |
| 10. | Dementia. Alzheimer's disease | | 1. TBL 2. Work with the patient for at least 50% of the study time |
| Midterm control 2 | | Summative evaluation: 2 stages: 1-stage – MCQ testing for understanding and application - 40% 2-stage – mini clinical exam (MiniCex) - 60% | |
| Final control (Exam) | | Summative evaluation: 2 stages: 1-stage – MCQ testing for understanding and application - 40% 2- stage – OSCE with NP - 60% | |
| Total | | | 100 |
| 9. | Methods of teaching in the discipline (briefly describe the approaches to teaching and learning that will be used in teaching) Using active learning methods: TBL, CBL | | |
| 1 | Methods of formative assessment: TBL – Team Based Learning CBL – Case Based Learning | | |
| 2 | Summative assessment methods (from point 5): 1. MCQ testing for understanding and application 2. Passing practical skills - miniclinical exam (MiniCex) 3. SIW - creative task 4. Medical history 5. Scientific project SSRW (student's scientific research work) 6. 360 score - behavior and professionalism | | |
| 10. | Summative assessment | | |
| № | Forms of control | General % from total % | |

| 1 | Patient history defence | 30% (estimated by the checklist) | |
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| 5 | Border control | 70% (1-stage – MCQ testing for understanding and application - 50%; 2- stage – mini clinical exam (MiniCex) - 50%) | |
| Border control 1 | | 30% +70% = 100% | |
| 1 | Patient history defence | 20% (estimated by the checklist) | |
| 2 | 360 score - behavior and professionalism | 10% (estimated by the checklist) | |
| 3 | Scientific project SSRW (student's scientific research work) | 10% | |
| 5 | Border control | 60% (1-stage – MCQ testing for understanding and application - 50%; 2- stage – mini clinical exam (MiniCex) - 50%) | |
| Border control 2 | | 20+10+10 + 60 = 100% | |
| 9 | Exam | 2 stages: 1st stage - testing on MCQ for understanding and application - 50% 2nd stage - OSCE with NP - 50% | |
| 10 | Final score: | ORD 60% + Exam 40% | |
| 10. | Score | | |
| Rating by letter system | Digital equivalent | Points (% content) | Assessment Description (changes should be made only at the level of the decision of the Academic Committee on the quality of the faculty) |
| A | 4,0 | 95-100 | Excellent. Exceeds the highest job standards. |
| A- | 3,67 | 90-94 | Excellent. Meets the highest job standards. |
| B+ | 3,33 | 85-89 | Good. Very good. Meets high job standards. |
| B | 3,0 | 80-84 | Good. Meets most of the job standards. |
| B- | 2,67 | 75-79 | Good. More than enough. Shows some reasonable ownership of the material. |
| C+ | 2,33 | 70-74 | Good. Acceptable. Meets the basic standards of the task. |
| C | 2,0 | 65-69 | Satisfactory. Acceptable. Meets some basic job standards. |
| C- | 1,67 | 60-64 | Satisfactory. Acceptable. Meets some basic job standards. |

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| D+ | 1,33 | 55-59 | Satisfactory. Minimally acceptable. |
| D | 1,0 | 50-54 | Satisfactory. Minimally acceptable. The lowest level of knowledge and completion of the task. |
| FX | 0,5 | 25-49 | Unsatisfactory. Minimally acceptable. |
| F | 0 | 0-24 | Unsatisfactory. Very low productivity. |

11. Educational resources (use the full link and specify where you can access the texts/materials)

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| Literature | Main Available in the library | | |
| | Author | Name of the book, publisher | Year of publication |
| | P. L. Robert et al. | International Neurology /2016. - 751 p. - Текст : непосредственный. | 2016 |
| | Абдрахманова М. Ғ. | Балалар неврологиясы : оқулық / М. Ғ. Абдрахманова, Ш. Қ. Омарова, 2018. - 243 б. - Текст : непосредственный. | 2018 |
| | Гусев, Евгений Иванович. | Неврология және нейрохирургия : екі томдық оқулық. 1-том : Неврология, 2016. - 481, [1] б. - Текст : непосредственный. | 2016 |
| | Гусев, Евгений Иванович. | Неврология және нейрохирургия : екі томдық оқулық. 2-том : Нейрохирургия, 2016. - 304, [3] б. - Текст : непосредственный. | 2016 |
| | Гусев, Евгений Иванович. | Неврология и нейрохирургия : учебник в двух томах. Т. 1 : Неврология, 2018. - 639, [1] с. - Текст : непосредственный. | 2018 |
| | Гусев, Евгений Иванович. | Неврология и нейрохирургия : учебник в двух томах. Т. 2 : Нейрохирургия, 2018. - 403, [1] с. - Текст : непосредственный. | 2018 |
| | С. Б. Жәутікова, С. Б. Нұрсұлтанова ; | Жүйке жүйесі модулі / серия ред. Р. С. | 2014 |

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| | | Досмағамбетова, 2014. - 264 б. - Текст : непосредственный. | |
| | Қайшыбаев, С. | Неврология [Мәтін] : оқулық. 2 кітап : Арнайы невропатология, 2018. - 483 б. - Текст : непосредственный. | 2018 |
| Available at the department | | | |
| | Tyler | Tinnitus Treatment | 2022 |
| | Albin | Parkinson Disease | 2023 |
| | | Oxford_Handook_of_Neurology.pdf | 2022 |
| | Ferrari | Oxford Textbook of Headache Syndromes 1 ed (2020).pdf | 2020 |
| | D'Aprile | MRI_of_Degenerative_Disease_of_the_Spine_A_Case_ Based Atlas | 2022 |
| | Chokroverty | Autonomic_Nervous_System_and_Sleep_Order_and_D isorder_1_ed_2021.pdf | 2021 |
| | Corrado Angelini | Acquired_Neuromuscular_Disorders_Pathogenesis,_Dia gnosis_and_Treatment.pdf | 2022 |
| | Zhou_1_ed_2020.pdf | A_Case-Based_Guide_to_Neuromuscular_Pathology_ | 2020 |
| | Pellock | Pellock's Pediatric Epilepsy Diagnosis and Therapy 4_ed_2017.pdf | 2017 |
| | MCU 2016 (What Do I Do Now) | Pediatric Neurology 2nd Edition.pdf | 2016 |
| Additional Available in the library | | | |
| | Author | Name of the book, publisher | Year of public ation |
| | F. Olzhayev, A. Tsoy, B. Umbayev [et al.], 2021. - 76 p. - Текст : непосредственный. | Experimental Model of a Focal Ischemic Brain Damage By Occlusion of the Middle Cerebral Artery : methodical recommendations / | 2021 |
| | E. Wolters, C. Baumann], 2014. - 832 p. - Текст : непосредственный. | Parkinson Disease and Other Movement Disorders : Motor Behavioural Disorders and Behavioural Motor | 2014 |

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| | | Disorders | |
| Preston, David C. | | Electromyography and Neuromuscular Disorders : Clinical-Electrophysiologic-Ultrasound Correlations / D. Preston, B. Shapiro | 2021 |
| М. Г. Абдрахманова, Е. В. Епифанцева, Д. С. Шайкенов | | Неврологиялық науқастарды оңалтудың заманауи принциптері : оқу-әдістемелік құрал | 2019 |
| Гусев, Евгений Иванович. | | Неврологические симптомы, синдромы и болезни : энциклопедический справочник / Е. И. Гусев, А. С. Никифоров, П. Р. Камчатнов, 2014. - 1038, [2] с. - Текст : непосредственный. | 2014 |
| Гусев, Евгений Иванович. | | Эпилепсия и ее лечение : монография / Е. И. Гусев, Г. Н. Авакян, А. С. Никифоров, 2016. - 308, [2] с. - Текст : непосредственный. | 2016 |
| КазНУ им. аль-Фараби | | Детский церебральный паралич: принципы профилактики, лечения и реабилитации : методические рекомендации | 2019 |
| Киспаева Т. Т. | | Неврология туралы дәрістер : оқу құралы / Т. Т. Киспаева, 2021. - 165, [1] б. - Текст : непосредственный. | 2021 |
| / Л. Н. Неробкова, Г. Г. Авакян, Т. А. Воронина, Г. Н. Авакян, 2020. - 280, [1] с. - Текст : непосредственный. | | Клиническая электроэнцефалография. Фармакоэлектроэнцефалография | 2020 |
| Ковальчук, Виталий Владимирович | | Реабилитация пациентов, перенесших инсульт : монография | 2016 |
| Куанова Л. Б. | | Семинары по детской неврологии : учеб. пособие / Л. Б. Куанова, 2018. - 115 с. - Текст : непосредственный. | 2018 |
| М. В. Кротенкова, В. В. Брюхов, С. Н. Морозова, И. А. Кротенкова, 2020. - 159, [1] с. - Текст : непосредственный. | | Магнитно-резонансная томография в диагностике и дифференциальной диагностике рассеянного склероза : руководство для врачей | 2020 |
| / под ред.: Г. Е. Труфанов, В. А. Фокин, 2020. - 535, [1] с. - Текст : непосредственный. | | МРТ. Позвоночник и спинной мозг : руководство для врачей | 2020 |
| под общ. ред. Н. Г. Коновалова, 2020. - 208 с. - Текст : непосредственный. | | Неонатология: реабилитация при патологии ЦНС : учебное пособие для вузов | 2020 |
| А. С. Никифоров, Г. Н. Авакян, О. И. Мендель, 2015. - | | Неврологические осложнения остеохондроза | 2020 |

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| 267, [1] с. - Текст : непосредственный. | позвоночника | |
| А. Ситель, 2019. - 246, [10] с. - Текст : непосредственный. | Соло для позвоночника : монография | 2019 |
| Ф. С. Олжаев, А. К. Цой, Б. А. Умбаев [и др.], 2021. - 76 с. - Текст : непосредственный. | Создание экспериментальной модели фокального ишемического инсульта головного мозга путем окклюзии средней мозговой артерии : методические рекомендации | 2021 |
| | Тактика врача-невролога : практическое руководство / Научный центр неврологии | 2021 |
| В. В. Крылов, А. С. Никитин, В. Г. Дашьян [и др.], 2016. - 129, [2] с. - Текст : непосредственный. | Хирургия массивного ишемического инсульта / | 2016 |
| А. Цискаридзе [и др.] ; пер. с англ., под ред. Л. В. Стаховской ; пер. с англ. Е. А. Кольцовой | Ятрогенный инсульт : руководство | 2019 |
| Available at the department (link to Classroom) | | |
| Wyllie | Wyllie_39_s_Treatment_of_Epilepsy_Principles_and_Practice_7_ed_2021.pdf | 2021 |
| Abd-Elsayed | Trigeminal Nerve Pain. A Guide to Clinical Management | 2021 |
| Whitfield | Traumatic Brain Injury | 2020 |
| Kister | Top 100 Diagnoses in Neurology | 2021 |
| Raza | Regenerative Therapies in Ischemic Stroke Recovery | 2022 |
| Newton | Neurological Complications of Systemic Cancer and Antineoplastic | 2022 |
| Lahue | MCU 2021 (What Do I Do Now) Emergency Neurology 2nd Edition | 2021 |
| Flemming | Mayo Clinic Neurology Board Review | 2022 |
| Beeck | Introduction to Human Neuroimaging | 2019 |
| Runge | Imaging of Cerebrovascular Disease. A Practical Guide | 2016 |
| LaFaver | Functional Movement Disorder. An Interdisciplinary Case Based Approach | 2022 |
| Cascino | Epilepsy | 2021 |
| | Emergency_Neurology_LaHue_2_ed_2021.pdf | |
| Katirji | Electromyography in Clinical Practice. A Case Study Approach | 2018 |

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| | Jain | Drug-induced Neurological Disorders | 2021 |
| | Tsementzis | Differential Diagnosis in Neurology and Neurosurgery. A Clinician's Pocket Guide | 2019 |
| | Brust | CURRENT Diagnosis & Treatment Neurology_3 ed | 2019 |
| | Carlson | Comprehensive Management of Vestibular Schwannoma | 2019 |
| | Ferrante | Comprehensive Electromyography With Clinical Correlations and Case | 2018 |
| | Nath | Clinical Neurovirology | 2020 |
| | Shenker | Challenging Cases in Neurologic Localization. An Evidence Based Guide. | 2022 |
| | Park | Acute Ischemic Stroke Medical Endovascular and Surgical Techniques | 2017 |
| | Dredge | Handbook of Pediatric Epilepsy | 2022 |
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| Electronic resources | Internet resources: 1. Medscape.com - https://www.medscape.com/familymedicine 2. Oxfordmedicine.com - https://oxfordmedicine.com/ 3. Uptodate.com - https://www.wolterskluwer.com/en/solutions/uptodate 4. Osmosis - https://www.youtube.com/c/osmosis 5. Ninja Nerd - https://www.youtube.com/c/NinjaNerdScience/videos 6. CorMedicale - https://www.youtube.com/c/CorMedicale - medical video animations in Russian language. 7. Lecturio Medical - https://www.youtube.com/channel/UCbYmF43dpGHZ8gi2ugiXr0Q 8. SciDrugs - https://www.youtube.com/c/SciDrugs/videos - video lectures on pharmacology in Russian language. | | |
| Simulators in the simulation center | | | |
| Special software | 1. Google classroom - available in the public domain. 2. Medical calculators: Medscape, Physician's Handbook, MD+Calc - freely available. 3. Directory of diagnostic and treatment protocols for medical workers from the RCHD, the Ministry of Health of the Republic of Kazakhstan: Dariger - available in the public domain. | | |

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| 12. | Tutor Requirements and Bonus System |
| | <p>A student in accordance with an individual internship plan:</p> <ol style="list-style-type: none"> 1) supervises patients in organizations providing pre-medical medical care, emergency medical care, specialized medical care (including high-tech), primary health care, palliative care and medical rehabilitation; 2) participates in the appointment and implementation of diagnostic, therapeutic and preventive measures; 3) conducts documentation and sanitary and educational work among the population; 4) participates in preventive examinations, medical examinations, is present at consultations; 5) participates in clinical rounds, clinical reviews; 6) participates in duty at least four times a month in medical organizations (duty is not taken into account when calculating the workload of an internship student); 7) participates in clinical and clinical-anatomical conferences; 8) is present at pathoanatomical autopsies, participates in the research of autopsy, biopsy and surgical materials; 9) under the supervision of a scientific supervisor, collects material and analyzes data for a scientific project. <p>Bonus system:</p> <p>For extraordinary achievements in the field of future professional activity (clinical, scientific, organizational, etc.), additional points up to 10% of the final assessment can be added to the student (by the decision of the department)</p> |
| 13. | Discipline policy (части, выделенные зеленым, пожалуйста, не изменяйте) |
| | <p>Discipline policy is determined by the University's Academic Policy and the University's Academic Integrity Policy. If the links do not open, then you can find the relevant documents in IS Univer.</p> <p>Rules of Professional Conduct:</p> <p>1) Appearance:</p> <ul style="list-style-type: none"> ✓ office style of clothing (shorts, short skirts, open T-shirts are not allowed to attend university, jeans are not allowed in the clinic) ✓ Clean and ironed coat ✓ medical mask ✓ medical cap (or a neat hijab without hanging ends) ✓ medical gloves ✓ changeable shoes ✓ neat hairstyle, long hair should be gathered in a ponytail, or a bun, for both girls and guys. Neatly short cut nails. Bright, dark manicure is prohibited. It is permissible to cover the nails with transparent varnish. ✓ badge with full name (full name) |

- 2) Mandatory presence of a phonendoscope, tonometer, centimeter tape, (you can also have a pulse oximeter)
- 3) Properly executed sanitary (medical) book (before the start of classes and must be updated on time)
- 4) * **Possession of a vaccination passport or other document confirming a fully completed course of vaccination against COVID-19 and influenza**
- 5) **Mandatory observance of the rules of personal hygiene and safety**
- 6) **Systematic preparation for the educational process.**
- 7) **Accurate and timely maintenance of reporting documentation.**
- 8) Active participation in medical-diagnostic and public events of the departments.

A student without a medical book and vaccination will not be allowed to see patients.



A student who does not meet the requirements for appearance and / or from whom a strong / pungent odor emanates, since such a smell can provoke an undesirable reaction in the patient (obstruction, etc.) - is not allowed to the patients!

Преподаватель в праве принять решение о допуске к занятиям студентов, которые не выполняют требования профессионального поведения, включая требования клинической базы!

Study discipline:

1. Being late for classes or the morning conference is not allowed. In case of being late, the decision on admission to the lesson is made by the teacher leading the lesson. If there is a good reason, inform the teacher about the delay and the reason by message or by phone. After the third delay, the student writes an explanatory note addressed to the head of the department indicating the reasons for being late and is sent to the dean's office to obtain admission to the lesson. If you are late without a valid reason, the teacher has the right to deduct points from the current grade (1 point for each minute of delay)
2. Religious events, holidays, etc. are not a valid reason for skipping, being late and distracting the teacher and the group from work during classes.
3. If you are late for a good reason - do not distract the group and the teacher from the lesson and quietly go to your place.
4. Leaving the class ahead of time, being outside the workplace during school hours is regarded as absenteeism.
5. Additional work of students during study hours (during practical classes and shifts) is not allowed.
6. For students who have more than 3 passes without notifying the curator and a good reason, a report is issued with a recommendation for expulsion.
7. Missed classes are not made up.
8. The internal regulations of the clinical bases of the department are fully applicable to students
9. Greet the teacher and any senior by standing up (in class)
10. Smoking (including the use of vapes, electronic cigarettes) is strictly prohibited on the territory of medical facilities (outdoors) and the university. Punishment - up to the annulment of boundary control, in case of repeated violation - the decision

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| | <p>on admission to classes is made by the head of the department</p> <p>11. Respectful attitude towards colleagues regardless of gender, age, nationality, religion, sexual orientation.</p> <p>12. Have a laptop / laptop / tab / tablet with you for studying and passing MCQ tests for TBL, boundary and final controls.</p> <p>13. Taking MCQ tests on phones and smartphones is strictly prohibited..</p> <p>The behavior of the student at the exams is regulated by the "Rules for the final control", "Instructions for the final control of the autumn/spring semester of the current academic year" (the current documents are uploaded to the Univer IS and are updated before the start of the session); "Regulations on checking text documents of students for the presence of borrowings."</p> |
| 14 | <p>1. Constantly preparing for classes: For example, backs up statements with relevant references, makes brief summaries Demonstrates effective teaching skills, assists in teaching others</p> <p>2. Take responsibility for your learning: For example, manages their learning plan, actively tries to improve, critically evaluates information resources</p> <p>3. Actively participate in group learning: For example, actively participates in discussions, willingly takes tasks</p> <p>4. Demonstrate effective group skills For example, takes the initiative, shows respect and correctness towards others, helps to resolve misunderstandings and conflicts.</p> <p>5. Skillful communication skills with peers: For example, he listens actively, is receptive to nonverbal and emotional signals Respectful attitude</p> <p>6. Highly developed professional skills: Eager to complete tasks, seek opportunities for more learning, confident and skilled Compliance with ethics and deontology in relation to patients and medical staff Observance of subordination.</p> <p>7. High introspection: For example, recognizes the limitations of his knowledge or abilities, without becoming defensive or reproaching others</p> <p>8. Highly developed critical thinking: For example, accordingly demonstrates skills in performing key tasks, such as generating hypotheses, applying knowledge to cases from practice, critically evaluating information, making conclusions aloud, explaining the process of reflection</p> <p>9. Fully complies with the rules of academic behavior with understanding, offers improvements in order to increase efficiency. Observes the ethics of communication – both oral and written (in chats and appeals)</p> <p>10. Fully follows the rules with full understanding of them, encourages other members of the group to adhere to the rules Strictly adheres to the principles of medical ethics and PRIMUM NON NOCERE</p> |
| 15. | Distance/Online Learning – Prohibited in Clinical Discipline |

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| (части, выделенные зеленым, пожалуйста, не изменяйте) | | |
| <p>1. According to the order of the Ministry of Education and Science of the Republic of Kazakhstan No. 17513 dated October 9, 2018 "On approval of the List of areas of training with higher and postgraduate education, training in which in the form of external studies and online education is not allowed". According to the above regulatory document, specialties with the discipline code of health care: bachelor's degree (6B101), master's degree (7M101), residency (7R101), doctoral studies, (8D101) - training in the form of external study and online education - is not allowed.</p> <p>Thus, students are prohibited from distance learning in any form. It is only allowed to work out a lesson in a discipline due to the absence of a student for reasons beyond his control and the presence of a timely confirming document (example: a health problem and presenting a confirming document - a medical certificate, a signal sheet of the PHC, an extract from a consultative appointment with a medical specialist - a doctor)</p> | | |
| 16. | Approval and review | |
| Head of the Department |  | Kurmanova G.M. |
| Committee for the Quality of Teaching and Training of the Faculty |  | Kurmanova G.M. |

Topic plan and content of classes

| № | Topic | Content | Literature | Conduct form |
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| | 2 | 3 | 4 | 5 |
| 1 | Cerebrovascular diseases, stroke and complications | <p>Apply knowledge about the etiology, classification of vascular diseases of the brain. Pathophysiology of cerebral circulation in occlusion of cerebral arteries and arterial hypertension.</p> <p>Apply knowledge about the mechanism of development of brain damage in cerebrovascular diseases (transient ischemic attack, ischemic stroke, hemorrhagic stroke, subarachnoid hemorrhage);</p> <p>Apply physical examination skills in case of damage to the nervous system;</p> <p>Interpret, generalize the data obtained during the examination of the patient, physical and laboratory-instrumental examination - UAC, BAC, coagulogram, CT, MRI, Duplex BCA</p> <p>Identify syndromes - cerebral, focal; formulates a topical, clinical diagnosis;</p> <p>Apply treatment tactics for ischemic and hemorrhagic strokes - thrombolytic therapy, nootropic therapy;</p> | <p>1. Oxford_Handook_of_Neurology</p> <p>2. Experimental Model of a Focal Ischemic Brain Damage By Occlusion of the Middle Cerebral Artery : methodical recommendations /</p> <p>3. Неврологиялық науқастардың оңалтудың заманауи принциптері : оқу-әдістемелік құрал</p> <p>4. Реабилитация пациентов, перенесших инсульт : монография</p> <p>5. Создание экспериментальной модели фокального ишемического инсульта головного мозга путем окклюзии средней мозговой артерии : методические рекомендации</p> <p>6. Хирургия массивного ишемического инсульта</p> <p>7. Ятрогенный инсульт : руководство</p> <p>8. International Neurology /2016. - 751 p.</p> <p>9. Неврология және нейрохирургия : екі томдық оқулық. 1-том : Неврология, 2016. - 481, [1] б</p> <p>10. Неврология және нейрохирургия : екі томдық оқулық. 2-том : Нейрохирургия, 2016. - 304, [3] б.</p> <p>11. Неврология и нейрохирургия : учебник в двух томах. Т. 1 : Неврология, 2018. - 639, [1] с.</p> <p>12. Неврология и нейрохирургия : учебник в двух томах. Т. 2 : Нейрохирургия, 2018. - 403, [1] с.</p> <p>13. Неврология [Мәтін] : оқулық. 2 кітап : Арнайы невропатология, 2018. - 483 б.</p> <p>Rfqib,ftd C., Неврология: оқулық. 2 кітап : Арнайы невропатология, 2018. - 483 б.</p> <p>14. Acute Ischemic Stroke Medical Endovascular and Surgical Techniques_Park_1_ed, 2017</p> <p>15. Regenerative Therapies in Ischemic Stroke</p> | |

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| | | | <p>Recovery, Raza, 1 ed, 2022</p> <p>16. MCU 2021 (What Do I Do Now) Emergency Neurology, 2nd Edition</p> <p>17. Imaging of Cerebrovascular Disease A Practical Guide, Runge, 1 ed</p> <p>18. Emergency Neurology LaHue, 2 ed, 2021</p> <p>19. Differential Diagnosis in Neurology and Neurosurgery. A Clinician's Pocket Guide, Tsementzis, 2 ed, 2019</p> <p>20. CURRENT Diagnosis and Treatment Neurology, Brust, 3 ed, 2019</p> <p>21. Acute Ischemic Stroke Medical Endovascular and Surgical Techniques, Park, 1 ed, 2017</p> | |
| 2 | Injuries to the brain, spinal cord and peripheral nervous system | <p>Apply knowledge of traumatic brain injury.</p> <p>Brain concussion. Brain injury. Intracranial traumatic hematomas. medical tactics.</p> <p>Interpret the data of imaging methods (echoencephalography, Doppler ultrasound, X-ray, angiography, CT, MRI, PET) in the pathology of the nervous system, know the indications and rules for conducting and the diagnostic value of such studies</p> <p>Be able to diagnose the consequences of traumatic brain injury, syndromal manifestations and their treatment. Postconcussion syndrome.</p> <p>Spinal cord injury: pathogenesis, clinic, diagnosis, medical tactics.</p> <p>Neurosurgical traumatic lesions of the CNS.</p> <p>Rehabilitation of patients with spinal trauma. Anesthetics classification, mechanism of action, pharmacokinetics, side effects, indications and contraindications.</p> | <p>1. International Neurology /2016. - 751 p.</p> <p>2. Неврология және нейрохирургия : екі томдық оқулық. 1-том : Неврология, 2016. - 481, [1] б.</p> <p>3. Неврология және нейрохирургия : екі томдық оқулық. 2-том : Нейрохирургия, 2016. - 304, [3] б.</p> <p>4. Неврология и нейрохирургия : учебник в двух томах. Т. 1 : Неврология, 2018. - 639, [1] с.</p> <p>5. Неврология и нейрохирургия : учебник в двух томах. Т. 2 : Нейрохирургия, 2018. - 403, [1] с.</p> <p>6. Қайшыбаев, С. Неврология [Мәтін] : оқулық. 2 кітап : Арнайы невропатология, 2018. - 483 б.</p> <p>7. Oxford_Handook_of_Neurology</p> <p>8. Неврологиялық науқастарды оңалтудың заманауи принциптері : оқу-әдістемелік құрал</p> <p>9. МРТ. Позвоночник и спинной мозг : руководство для врачей</p> <p>10. Соло для позвоночника : монография</p> <p>12. Traumatic Brain Injury, Whitfield, 2 ed, 2020</p> <p>13. MCU 2021 (What Do I Do Now) Emergency Neurology 2nd Edition</p> | |
| 3 | Space-occupying masses | <p>Benign and malignant neoplasms of the central nervous system.</p> <p>Apply physical examination skills in case of damage to the nervous system;</p> | <p>1. International Neurology /2016</p> <p>2. Неврология және нейрохирургия : екі томдық оқулық. 1-том : Неврология, 2016.</p> | |

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| | of the nervous system | <p>Interpret, generalize the data obtained during the examination of the patient, physical and laboratory-instrumental examination - UAC, BAC, coagulogram, CT, MRI, Duplex BCA</p> <p>Identify syndromes - cerebral, focal; formulates a topical, clinical diagnosis;</p> | <p>3. Неврология және нейрохирургия : екі томдық оқулық. 2-том : Нейрохирургия, 2016</p> <p>4. Неврология и нейрохирургия : учебник в двух томах. Т. 1 : Неврология, 2018</p> <p>5. Неврология и нейрохирургия : учебник в двух томах. Т. 2 : Нейрохирургия, 2018.</p> <p>6. Неврология [Мәтін] : оқулық. 2 кітап : Арнайы невропатология, 2018</p> <p>7. Oxford_Handook_of_Neurology</p> <p>8. Oxford Textbook of Headache Syndromes, 1 ed (2020)</p> <p>9. Неврологиялық науқастарды оңалтудың заманауи принциптері : оқу-әдістемелік құрал</p> <p>10. Неврологические симптомы, синдромы и болезни : энциклопедический справочник / Е. И. Гусев, А. С. Никифоров, П. Р. Камчатнов, 2014</p> <p>11. Neurological Complications of Systemic Cancer and Antineoplastic</p> <p>12. Introduction to Human Neuroimaging (Beck) 1 ed (2019).pdf Introduction to Human Neuroimaging (Beck) 1 ed (2019)</p> <p>13. CURRENT Diagnosis and Treatment Neurology, Brust, 3 ed, 2019</p> <p>14. Comprehensive Management of Vestibular Schwannoma, Carlson, 1 ed, 2019</p> <p>15. Challenging Cases in Neurologic Localization, An Evidence Based Guide</p> | |
| 4 | Neuroinfections Concept of viral encephalitis ADEM | <p>Syndromes of meningitis, encephalitis, myelitis.</p> <p>Syndrome of meningitis in infectious diseases. meningococcal infection. Principles of early diagnosis, therapeutic tactics of a doctor in case of suspected meningococcal infection. Purulent and serous meningitis, principles of differential diagnosis. Meningeal syndrome in non-infectious pathology (secondary purulent meningitis, subarachnoid hemorrhage, brain tumors). Differential diagnosis with tuberculous meningitis.</p> <p>encephalitis syndrome. Tick-borne encephalitis. Natural foci of</p> | <p>1. P. L. Robert et al. International Neurology /2016</p> <p>2. М. Ғ. Абдрахманова, Ш. Қ. Балалар неврологиясы : оқулық / М. Ғ. Абдрахманова, Ш. Қ. Омарова, 2018.</p> <p>3. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық. 1-том : Неврология, 2016.</p> <p>4. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық.</p> | |

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| | | <p>tick-borne encephalitis in the Republic of Kazakhstan. Classification. Standard case definition for tick-borne encephalitis. Principles of treatment and prevention. Polio. Principles of diagnosis, treatment, prevention. Determine the mechanisms of development of infectious and inflammatory diseases nervous system; Apply physical examination skills in case of damage to the nervous system; To be able to carry out differential diagnostics of the main infectious and inflammatory diseases of the nervous system (meningitis, encephalitis, poliomyelitis, brain abscess, damage to the nervous system in AIDS) Identify syndromes - cerebral, focal; formulate a clinical diagnosis; Build treatment tactics for infectious and inflammatory diseases nervous system - pathogenetic treatment: hormonal therapy, antiviral, antibacterial therapy, anti-inflammatory therapy, decongestant therapy; Improve interpersonal communication and patient counseling skills;</p> | <p>2-том : Нейрохирургия, 2016. 5. Гусев, Евгений Иванович. Неврология и нейрохирургия : учебник в двух томах. Т. 1 : Неврология, 2018. 6. Гусев, Евгений Иванович. Неврология и нейрохирургия : учебник в двух томах. Т. 2 : Нейрохирургия, 2018. 7. Қайшыбаев, С. Неврология [Мәтін] : оқулық. 2 кітап : Арнайы невропатология, 2018. 8. Oxford_Handook_of_Neurology.pdf 9. MCU 2021 (What Do I Do Now) Emergency Neurology 2nd Edition 10. Mayo Clinic Neurology Board Review (Flemming) 2 ed (2022).pdf 11. CURRENT Diagnosis and Treatment Neurology, Brust, 3 ed, 2019 12. Clinical_Neurovirology_Nath_2_ed_2020</p> | |
| 5 | Multiple sclerosis | <p>Multiple sclerosis. Apply knowledge about pathogenesis, clinic, diagnosis, types of flow. Paraclinical research methods in the diagnosis of multiple sclerosis: MRI of the brain and spinal cord, the study of evoked potentials of the brain. Apply physical examination skills in case of damage to the nervous system; Interpret, generalize the data obtained during the examination of the patient, physical and laboratory-instrumental examination - UAC, BAC, coagulogram, MRI Identify syndromes - cerebral, focal; formulates a topical, clinical diagnosis; Drugs that change the course of multiple sclerosis (PIMS first,</p> | <p>1. P. L. Robert et al. International Neurology /2016 2. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық. 1-том : Неврология, 2016. 3. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық. 2-том : Нейрохирургия, 2016 4. Гусев, Евгений Иванович. Неврология и нейрохирургия : учебник в двух томах. Т. 1 : Неврология, 2018. 5. Гусев, Евгений Иванович. Неврология и нейрохирургия : учебник в двух томах. Т. 2: Нейрохирургия, 2018. 6. Қайшыбаев, С. Неврология [Мәтін] : оқулық. 2</p> | |

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| | | second third line) classification, mechanism of action, pharmacokinetics, side effects, indications and contraindications. Multiple sclerosis: https://geekymedics.com/multiple-sclerosis/ Multiple sclerosis: https://www.youtube.com/watch?v=yzH8ul5PSZ8 | кітап : Арнайы невропатология, 2018. 7. Магнитно-резонансная томография в диагностике и дифференциальной диагностике рассеянного склероза : руководство для врачей 8. CURRENT Diagnosis and Treatment Neurology, Brust, 3 ed, 2019 | |
| 6 | Autoimmune diseases - myasthenia gravis | Myasthenia gravis: pathogenesis, clinic, diagnosis, treatment. Apply physical examination skills in case of damage to the nervous system; Interpret, generalize the data obtained during the examination of the patient, physical and laboratory-instrumental examination - UAC, BAC, coagulogram, Electroneuromyography, MRI Identify syndromes - cerebral, focal; formulates a topical, clinical diagnosis; Myasthenic crisis: causes, clinic, diagnosis, treatment. Cholinergic crisis: causes, clinic, diagnosis, treatment | 1. P. L. Robert et al. International Neurology /2016. 2. Абдрахманова М. Ф. Балалар неврологиясы : оқулық / М. Ф. Абдрахманова, Ш. Қ. Омарова, 2018. 3. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық. 1-том : Неврология, 2016 4. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық. 1-том : Неврология, 2016. 5. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық. 2-том : Нейрохирургия, 2016. 6. Неврология и нейрохирургия : учебник в двух томах. Т. 1 : Неврология, 2018. 7. Неврология и нейрохирургия : учебник в двух томах. Т. 2 : Нейрохирургия, 2018. | |
| 7 | Epilepsy and epileptic encephalopathies | Apply knowledge about the classification of epilepsy and epileptic seizures. Etiology and pathogenesis of epilepsy and epileptic syndrome. Treatment of epilepsy. Status epilepticus: clinic, pathogenesis, treatment. Features of the course of epilepsy in children, neonatal convulsions, infantile spasms (West syndrome), Lennox-Gastaut syndrome, febrile convulsions, benign rolandic epilepsy; non-epileptic paroxysmal disorders in childhood (affective-respiratory attacks). Paraclinical methods in the diagnosis of paroxysmal disorders of consciousness - electroencephalography, CT and MRI of the head. Principles of prescribing antiepileptic drugs: classification, mechanism of action, pharmacokinetics, side effects, indications | 1. P. L. Robert et al. International Neurology /2016. 2. Абдрахманова М. Ф. Балалар неврологиясы : оқулық / М. Ф. Абдрахманова, Ш. Қ. Омарова, 2018. 3. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық. 1-том : Неврология, 2016. 4. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық. 2-том : Нейрохирургия, 2016. 5. Гусев, Евгений Иванович. Неврология и нейрохирургия : учебник в двух томах. Т. 1: Неврология, 2018. | |

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| | | and contraindications. Antidepressants classification, mechanism of action, pharmacokinetics, side effects, indications and contraindications | 6. Гусев, Евгений Иванович. Неврология и нейрохирургия : учебник в двух томах. Т. 2: Нейрохирургия, 2018. 7. Қайшыбаев, С. Неврология: оқулық. 2 кітап : Арнайы невропатология, 2018. 8. Oxford_Handbook_of_Neurology 9. Pellock. Pellock's Pediatric Epilepsy Diagnosis and Therapy, 4 ed, 2017 10. MCU 2016 (What Do I Do Now) Pediatric Neurology 2nd Edition 11. Гусев, Евгений Иванович. Эпилепсия и ее лечение : монография / Е. И. Гусев, Г. Н. Авакян, А. С. Никифоров, 2016. 12. Л. Н. Неробкова, Г. Г. Авакян, Т. А. Воронина, Г. Н. Авакян, 2020. Клиническая электроэнцефалография. Фармакоэлектроэнцефалография 13. Wyllie 39 s Treatment of Epilepsy Principles and Practice Wyllie, 7 ed, 2021 14. Epilepsy Cascino 2 ed, 2021 15. CURRENT Diagnosis and Treatment Neurology, Brust, 3 ed, 2019 16. Dredge. Handbook of pediatric epilepsy, 1 ed 2022 | |
| 8 | Hereditary neuromuscular diseases | Know about hereditary neuromuscular diseases, Classify diseases about HNMZ, Be able to identify family history; Interpret clinical and laboratory-instrumental data for the diagnosis and treatment of the identified pathology in accordance with the principles of evidence-based medicine. Diagnose by clinical manifestations of hereditary neuromuscular diseases; Conduct a differentiated diagnosis of HNMZ with other clinically similar manifestations; To identify the cause of their development to provide adequate medical care. Improve interpersonal communication and patient | 1. P. L. Robert et al. International Neurology /2016. 2. Абдрахманова М. Ф. Балалар неврологиясы : оқулық / М. Ф. Абдрахманова, Ш. Қ. Омарова, 2018. 3. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық. 1-том : Неврология, 2016. 4. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық. 2-том : Нейрохирургия, 2016. 5. Гусев, Евгений Иванович. Неврология и нейрохирургия : учебник в двух томах. Т. 1: | |

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| | | counseling skills; | <p>Неврология, 2018</p> <p>6. Гусев, Евгений Иванович. Неврология и нейрохирургия : учебник в двух томах. Т. 2 : Нейрохирургия, 2018.</p> <p>7. С. Б. Жәутікова, С. Б. Нұрсұлтанова ; Жүйке жүйесі модулі / серия ред. Р. С. Досмағамбетова, 2014.</p> <p>8. Қайшыбаев, С. Неврология [Мәтін] : оқулық. 2 кітап : Арнайы невропатология, 2018.</p> <p>9. Oxford_Handook_of_Neurology</p> <p>10. Corrado Angelini, Acquired Neuromuscular Disorders Pathogenesis, Diagnosis and Treatment</p> <p>11. Zhou, A Case-Based Guide to Neuromuscular Pathology, 1 ed, 2020</p> <p>12. Preston, David C. Electromyography and Neuromuscular Disorders : Clinical-Electrophysiologic-Ultrasound Correlations / D. Preston, B. Shapiro</p> <p>13. М. Г. Абдрахманова, Е. В. Епифанцева, Д. С. Шайкенов. Неврологиялық науқастарды оңалтудың заманауи принциптері : оқу-әдістемелік құрал</p> <p>14. Куанова Л. Б. Семинары по детской неврологии: учеб. пособие / Л. Б. Куанова, 2018.</p> <p>15. Kister. Top 100 diagnoses in neurology, 1 ed, 2021</p> <p>16. Electromyography in Clinical Practice A Case Study Approach Katirji 3 ed, 2018</p> <p>17. Curent Diagnosis and Treatment Neurology. Brust 3 ed, 2019</p> | |
| 9 | Parkinson's disease. Parkinsonism syndrom | <p>Parkinson's disease. Etiology, pathogenesis, clinic, diagnostics. Antiparkinsonian drugs, classification, mechanism of action, pharmacokinetics, side effects, indications and contraindications. Apply physical examination skills in case of damage to the nervous system;</p> <p>Interpret, generalize the data obtained during the examination of</p> | <p>1. P. L. Robert et al. International Neurology /2016.</p> <p>2. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық. 1-том : Неврология, 2016.</p> <p>3. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық. 2-том :</p> | |

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| | e | <p>the patient, physical and laboratory-instrumental examination - UAC, BAC, coagulogram, MRI</p> <p>Identify syndromes - cerebral, focal; formulates a topical, clinical diagnosis;</p> | <p>Нейрохирургия, 2016.</p> <p>4. Гусев, Евгений Иванович. Неврология и нейрохирургия : учебник в двух томах. Т. 1 : Неврология, 2018.</p> <p>5. Гусев, Евгений Иванович. Неврология и нейрохирургия : учебник в двух томах. Т. 2 : Нейрохирургия, 2018.</p> <p>6. С. Б. Жәутікова, С. Б. Нұрсұлтанова ; Жүйке жүйесі модулі / серия ред. Р. С. Досмағамбетова, 2014.</p> <p>7. Қайшыбаев, С. Неврология [Мәтін] : оқулық. 2 кітап : Арнайы невропатология, 2018.</p> <p>7. Albin. Parkinson Disease</p> <p>8. Oxford_Handook_of Neurology</p> <p>9. E. Wolters, C. Baumann. Parkinson Disease and Other Movement Disorders : Motor Behavioural Disorders and Behavioural Motor Disorders, 2014</p> <p>10. CURRENT diagnosis and treatment, Neurology. Brust, 3 ed, 2019</p> | |
| 10 | Dementia. Alzheimer's disease | <p>Vascular dementia. mixed dementia. Drugs for the treatment of Alzheimer's, classification, mechanism of action, pharmacokinetics, side effects, indications and contraindications.</p> <p>Apply physical examination skills in case of damage to the nervous system;</p> <p>Interpret, generalize the data obtained during the examination of the patient, physical and laboratory-instrumental examination - UAC, BAC, coagulogram, MRI</p> <p>Identify syndromes - cerebral, focal; formulates a topical, clinical diagnosis;</p> | <p>1. P. L. Robert et al. International Neurology /2016.</p> <p>2. Гусев, Евгений Иванович. Неврология және нейрохирургия : екі томдық оқулық. 1-том : Неврология, 2016.</p> <p>3. Гусев, Евгений Иванович. Неврология и нейрохирургия : учебник в двух томах. Т. 1 : Неврология, 2018.</p> <p>4. Гусев, Евгений Иванович. Неврология и нейрохирургия : учебник в двух томах. Т. 2 : Нейрохирургия, 2018.</p> <p>5. С. Б. Жәутікова, С. Б. Нұрсұлтанова ; Жүйке жүйесі модулі / серия ред. Р. С. Досмағамбетова, 2014.</p> <p>6. Қайшыбаев, С. Неврология [Мәтін] : оқулық. 2 кітап : Арнайы невропатология, 2018.</p> <p>7. Oxford_Handook_of Neurology</p> <p>8. М. Г. Абдрахманова, Е. В. Епифанцева, Д. С.</p> | |

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|--|--|--|---|--|
| | | | Шайкенов. Неврологиялық науқастарды оңалтудың заманауи принциптері : оқу- әдістемелік құрал 9. Kister. Top 100 diagnoses in neurology, 1 ed, 2021 10. Beeck. Introduction to Human Neuroimaging, 1 ed (2019) 11. CURRENT diagnosis and treatment, Neurology, Brust, 3 ed, 2019 | |
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RUBRICATOR FOR ASSESSING LEARNING OUTCOMES
with summative assessment

Rating calculation formula

For the 4th course as a whole- overall admission rating (OAR)

| | |
|------------------------|------|
| Medical history | 30% |
| Border control 1 | 70% |
| Total for BC-1 | 100% |
| 360 rating | 10% |
| Science project | 10% |
| Medical history | 20% |
| Border control 2 | 60% |
| Total for BC -2 | 100% |

Final score: OAR 60% + exam 40%

Exam (2 stages) – MSQ testing (50%) + OSKE (50%)

Team based learning – TBL

| | |
|-----------------------------|-----------|
| | % |
| Individual -- (IRAT) | 30 |
| Group -- (GRAT) | 10 |
| Appeal | 10 |
| | |

| | |
|---------------------------------|-------------|
| Case rating - | 20 |
| Companion rating (bonus) | 10 |
| | 100% |

Case-based learning CBL

| | | % |
|----|---|-------------|
| 1 | Interpreting survey data | 10 |
| 2 | Interpretation of physical examination findings | 10 |
| 3 | Preliminary diagnosis, justification, PD, examination plan | 10 |
| 4 | Interpretation of lab-instrumental examination data | 10 |
| 5 | Clinical diagnosis, problem sheet | 10 |
| 6 | Management and treatment plan | 10 |
| 7 | The validity of the choice of drugs and treatment regimens | 10 |
| 8 | Evaluation of effectiveness, prognosis, prevention | 10 |
| 9 | Special problems and questions on the case | 10 |
| 10 | Companion rating (bonus) | |
| | | 100% |

360° assessment checklist for student

CURATOR and Lecturer

FULL NAME of Curator _____ Signature _____

| | Very well | Criteria and points | Unsatisfactory |
|----------|---|---|---|
| 1 | Constantly preparing for classes: For example, backs up statements with relevant references, makes short summaries Demonstrates effective teaching skills, | Preparing for classes 10 8 6 4 2 0 | Constantly not preparing for class For example, insufficient reading and study of problematic issues, makes little contribution to the knowledge of the group, does not analyze, does not |

| | | | |
|----------|--|--|--|
| | assists in teaching others | | summarize the material. |
| 2 | Takes responsibility for their own learning: For example, manages their learning plan, actively tries to improve, critically evaluates information resources | A responsibility 10 8 6 4 2 0 | Takes no responsibility for their own learning: For example, depends on others to complete the learning plan, hides mistakes, rarely critically analyzes resources. |
| 3 | Actively participates in the training of the group: For example, actively participates in discussions, willingly takes tasks | Participation 10 8 6 4 2 0 | Not active in the group training process: For example, does not participate in the discussion process, is reluctant to accept assignments |
| 4 | Demonstrates effective group skills For example, takes the initiative, shows respect and correctness towards others, helps to resolve misunderstandings and conflicts. | Group skills 10 8 6 4 2 0 | Demonstrates ineffective group skills For example, inappropriately intervening, showing poor discussion skills by interrupting, avoiding or ignoring others, dominating or impatient |
| 5 | Skilled in communicating with peers: For example, actively listening, receptive to non-verbal and emotional cues Respectful attitude | Communications 10 8 6 4 2 0 | Difficulty communicating with peers For example, poor listening skills, unable or disinclined to listen to non-verbal or emotional cues Use of obscene language |
| 6 | Highly developed professional skills: Eager to complete tasks, seek opportunities for more learning, confident and skilled Compliance with ethics and deontology in | Professionalism | Clumsy, fearful, refusing to try even basic procedures Inferiority in professional behavior - |

| | | | |
|-----------|---|--|--|
| | relation to patients and medical staff Observance of subordination. | 10 8 6 4 2 0 | causing harm to the patient, rude disrespectful attitude towards medical staff, colleagues |
| 7 | High introspection: For example, recognizes the limitations of their knowledge or abilities without becoming defensive or rebuking others. | Reflection 10 8 6 4 2 0 | Low introspection: For example, needs more awareness of the limits of understanding or ability and does not take positive steps to correct |
| 8 | Highly developed critical thinking: For example, appropriately demonstrates skill in performing key tasks such as generating hypotheses, applying knowledge to case studies, critically evaluating information, drawing conclusions aloud, explaining the process of thinking | Critical thinking 10 8 6 4 2 0 | Critical Thinking Deficiency: For example, has difficulty completing key tasks. As a rule, does not generate hypotheses, does not apply knowledge in practice either because of their lack or because of inability (lack of induction), does not know how to critically evaluate information |
| 9 | Fully adheres to the rules of academic conduct with understanding, suggests improvements in order to increase efficiency. Complies with the ethics of communication - both oral and written (in chats and appeals) | Compliance with the rules of academic conduct 10 8 6 4 2 0 | Пренебрегает правилами, мешает другим членам коллектива Neglects the rules, interferes with other members of the team |
| 10 | Fully follows the rules with full understanding of them, encourages other members of the group to adhere to the rules Strictly adheres to the principles of medical ethics and PRIMUM NON NOCERE | Compliance with the rules of conduct in the hospital 10 8 6 4 2 0 | Breaks the rules. Encourages and provokes other members of the group to break the rules Creates a threat to the patient |

| | | | |
|--|---------|-------------------|--|
| | Maximum | 100 points | |
|--|---------|-------------------|--|

* gross violation of professional behavior, rules of conduct in the hospital - or a decrease in the grade for boundary control or cancellation; ethical committee

Such violations are a threat to the health of patients due to action (for example, smoking on the territory of the hospital) or inaction; rudeness and rudeness towards any person (patient, classmate, colleague, teacher, doctor, medical staff)

Point-rating assessment (check-list) of medical history management (maximum 100 points)

| № | Criteria | 10 | 8 | 6 | 4 | 2 |
|---|--|---|---|--|---|--|
| | | <i>Excellent</i> | <i>Good</i> | <i>Satisfactory</i> | <i>Need correction</i> | <i>Bad</i> |
| 1 | Patient complaints: major and minor | Completely and systematically, with an understanding of important details | Accurate and complete | basic information | Incomplete or inaccurate, some details are missing | Misses important |
| 2 | Collecting an anamnesis of the disease | | | | | |
| 3 | Anamnesis of life | | | | | |
| 4 | Objective status - general examination | Completely and systematically, with an understanding of important details | Consistently and correctly | Identification of main data | Incomplete or not quite correct, not attentive to patient comfort | Inappropriate data |
| 5 | Nervous system | | Complete, effective, technically correct application of all examination skills, physical examination with minor errors, or corrected during execution | Revealed basic data Physical examination skills learned | Incomplete or Inaccurate Physical examination skills need to be improved | Important data are missing. Inappropriate physical examination skills |
| 6 | Medical history presentation | Maximum full description | precise, focused; choice of facts | Record is by form, includes all | Many important omissions, inaccurate | Lack of control of the situation, many |

| | | | | | | |
|--|--|--|---------------------|--------------------|--|--|
| | | and presentation Understands the problem in a complex, connects with the patient's features | shows understanding | basic information; | or unimportant facts are often included | important omissions, many clarifying questions |
| | | | | | | |

Point-rating assessment (check-list) of the ISW (independent student's work) - creative task (maximum 90 points) + bonuses for English and time management

| | | 10 | 8 | 4 | 2 |
|----------|------------------------|---|--|---|---|
| 1 | Problem solving | The organized concentrated, allocates all questions which are falling into to the main revealed problem with a comprehension of a concrete clinical situation | Organized, the concentrated, allocates all questions which are falling into to the main revealed problem, but there is no comprehension of a concrete clinical situation | Not the concentrated, Derivation on the questions which are not falling into to the main revealed problem | Inaccurate, misses the main thing, disharmonious data. |
| 2 | Information | All necessary information on a subject in the free, serial, logical manner is completely conveyed The product form is adequately chosen | All necessary information in a logical manner, but with shallow inaccuracies is conveyed | All necessary information on a subject is explained chaotically, with not gross errors | Important information on a subject, gross errors is not reflected |

| | | | | | |
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| 3 | Significance | Material is chosen on the basis of authentically established facts. Manifestation of a comprehension on the level or quality of proofs | Some conclusions and the conclusions are formulated on the basis of assumptions or the incorrect facts. There is no complete comprehension of level or quality of proofs | Not the sufficient comprehension of a problem, some conclusions and the conclusions are based on the inexact and not proved data – doubtful resources are used | Conclusions and the conclusions are not proved or irregular |
| 4 | Logic | logical and well reasoning, has internal unity, provisions in a product follow one of another and are logically interdependent between themselves | Has internal unity, provisions of a product one of another follows, but there are inaccuracies | There is no sequence and logicity in statement, but it is possible to keep track of the main idea | Jumps from one on another, it is difficult to catch the main idea |
| 5 | Recourses | Literary data are submitted in logical interrelation, show deep study of the main and padding informational resources | Literary data show study of the main literature | Only ordinary recourses | Inconsistency and randomness in statement of data, an inconsistency There is no knowledge of the main textbook Using of Google |
| 6 | Practical application | High | Good | moderate | no |
| 7 | Patient focusing | High | Good | moderate | no |
| 8 | Applicability in future practice | High | Good | moderate | no |
| 9 | Presenation | Correctly, to the place all opportunities of Power Point or | It is overloaded or are insufficiently used visual | Visual materials are not | Does not own material, is not |

| | | | | | |
|-----------------------|--|---|---|---|---|
| | | other e-softs, the free possession of material, a sure manner of statement are used | materials, inexact possession of material | informative | able to explain it |
| b o n u s | Time management* | 10 For before deadline | In time | Good quality but a little late Minus 2-4 | After deadline more than 24 hours Minus 10 |
| b o n u s | Rating** | 10 points additional | Outstanding work, for example: The best work in group Creative approach Innovative approach to realization of a task According to the proposal of group | | |
| | * The deadline is determined by the teacher, as a rule - the day of the boundary control ** thus, you can get 90 points as much as possible, to get above 90-you need to show a result higher than expected | | | | |