**SYLLABUS**

**ДӘРІГЕР СТОМАТОЛОГҚА ІШКІ АУРУЛАР/**

**ВНУТРЕННЯЯ МЕДИЦИНА СТОМАТОЛОГУ/**

**INTERNAL MEDICINE TО THE DENTIST**

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| **1.** | **General information about the discipline** | | | | |
| 1.1 | Faculty/School:  Graduate School of Medicine | | | 1.6 | Credits (ECTS):  a) 6 credits - 180 hours |
| 1.2 | Educational program (EP):  ***6B10113* DENTISTRY** | | | 1.7 | **Prerequisites:**  1. Жалпы патология/Общая патология/General pathology  2. Науқас және дәрігер/Пациент и врач/Patient and doctor  **Postrequisites:**  Ішкі аурулар/Внутренние болезни/Internal medicine  Children's diseases to the dentist |
| 1.3 | Agency and year of accreditation of the EP  НААР 2021 | | | 1.8 | СРС/СРМ/СРД (quantity):  60 hours |
| 1.4 | Name of discipline:  **Дәрігер стоматологқа ішкі аурулар/**  **Внутренняя медицина стоматологу/**  **Internal medicine tо the dentist** | | | 1.9 | СРСП/СРМП/СРДП (quantity):  30 hours |
| 1.5 | Discipline ID: **103380**  Discipline code: **VMS 3301** | | | 1.10 | ***Required -*** yes |
| **2.** | **Description of the discipline** | | | | |
|  | Students obtain theoretical and practical knowledge about the diagnosis and treatment of the most common somatic diseases and their dental manifestations, basic infectious and dermatovenerological pathologies accompanied by damage to the oral cavity. | | | | |
| **3** | **Purpose of the discipline** | | | | |
| Mastering the diagnosis of the most common somatic diseases with manifestations in  oral cavity in their typical manifestation and course and in the age aspect, based on the principles  evidence-based medicine, using the skills of effective professional communication, interpretation of clinical symptoms and syndromes, data from laboratory and instrumental research methods and the use of basic medical treatment, diagnostic and preventive  events. | | | | | |
| **4.** | **Learning outcomes (LО) 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) | |
| 1. Apply knowledge on the pathogenesis of dental pathology in the process of diagnosis and treatment. | Proficiency level - 2 | 1. Apply detailed knowledge of the typical structure and functions of the human body at the level - from molecules, to cells, to organs and systems, to the body as a whole. | | |
| 2. Be able to conduct targeted questioning and physical examination of the patient, taking into account age-related characteristics with dental pathology. | Proficiency level - 3 | 1. Identify and solve problems affecting human health by applying knowledge of basic pathological processes and biological injuries in dental practice. | | |
| 3. Identify diagnostic and therapeutic interventions related to common diseases affecting dental pathology | Proficiency level - 2 | 1. Identify and interpret clinical symptoms and syndromes, collect information from patients and other sources of clinical relevance, laboratory and instrumental examination data from age-matched patients for the management of dental disease, including the initiation of appropriate interventions. | | |
| 4. Interpret the basic data of laboratory, morphological and instrumental examinations for the most common diseases. | Proficiency level - 2 | 1. Integrate clinical knowledge and skills to ensure a personalised approach in treating the dental patient and promoting their health according to their needs; make professional decisions based on analysis of the rationality of diagnosis and applying the principles of evidence-based and personalised medicine. | | |
| 5. Integrate knowledge to identify the main lesion syndromes across systems | Proficiency level - 3 | 1. Effectively build dynamic relationships between the dentist and the patient that take place before, during and after medical treatment, respecting the principles of ethics and deontology, based on knowledge of human behaviour, patient psychology in a culturally sensitive and racially sensitive manner. | | |
| 6. Describe the social, economic, ethnic, and racial factors that play a role in the development, diagnosis, and treatment of diseases. | Proficiency level - 2 | 1. Work effectively in an interprofessional/multidisciplinary team with other healthcare professionals in organising and managing the treatment and diagnostic process; collect and communicate medical information verbally and in writing to provide safe and effective patient care. | | |
| 7. Apply the classification of diseases, understand the mechanism of action, pharmacokinetics, analyze side effects, indications and contraindications for the use of drugs, antibacterials, immunosuppressants (glucocorticosteroids, cytostatics), diuretics, antihypertensives, antivirals, etc. | Proficiency level - 3 | 1. To provide effective and timely dental care, based on the principles of evidence-based medicine and humanity, applying legal regulations, for diseases in patients of all age groups, paying attention to its quality, safety. | | |
| 8. Demonstrate the ability to conduct effective medical interviewing, taking into account the rules and norms of the doctor-patient relationship and knowledge of the basic principles of human behavior at different age periods, in normal and abnormal behavior, in different situations; | Proficiency level - 2 | 1. Provide timely and effective medical care for emergencies and life-threatening conditions, including emergencies, natural and man-made disasters and pandemics, in a humane, safe and effective manner. | | |
| 9. Demonstrate a commitment to the highest standards of professional responsibility and integrity; -observe ethical principles in all professional interactions; | Proficiency level - 2 | 1. Apply knowledge of the rights, obligations and ways of protecting the rights of patients, including children as patients, in professional practice; apply knowledge of legal norms in the work of the dentist, ways and means of legal protection of health care professionals. | | |
| 10. Demonstrate the need for continuous professional training and improvement of their knowledge and skills; | Proficiency level - 3 | 1. Analyse and maintain necessary documentation in dental organisations, using modern information and digital technology and health information systems to solve professional problems and conduct research. | | |
| 11. Demonstrate scientific research skills, a desire for new knowledge and the transfer of knowledge to others. | Proficiency level - 3 | 1. Apply knowledge of the principles and methods of forming a healthy lifestyle of the individual and family, population health; apply knowledge of the complex of determinants of health and disease in order to prevent diseases of the maxillofacial region. | | |
|  | 12. Be committed to the highest standards of professional responsibility and integrity; | Proficiency level - 3 | 1. To be committed to the highest standards of professional responsibility and integrity; to observe ethical principles in all professional interactions with patients, families, colleagues and the wider community, regardless of ethnicity, culture, gender, economic status or sexual orientation; | | |
|  | 13. Help improve the healthcare system | Proficiency level - 3 | 1. To contribute to the improvement of the health care system, especially the dental system, to formulate and solve professional problems by applying modern management techniques based on advances in science and practice, to focus on professional development and lifelong learning. | | |
|  | 14. Participate in scientific research aimed at advancing knowledge in the field of dental health and improving quality of life; | Proficiency level - 3 | 14. Participate in scientific research aimed at advancing knowledge in the field of dental health and quality of life; strive for new knowledge, generate new knowledge; be capable of effective learning and transferring knowledge to others throughout professional life. | | |
| **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 | Curation, clinical skills |
| 5.3 | 3. SIW (case, video, simulation OR SRWS - thesis, report, article) - assessment of the 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: comprehensive throughout the module pathology of organs and systems-1 including "Languages in Medicine"  Stage 1 - Testing on MCQ for understanding and application  Stage 2 - OSСE |

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| **6.** | | **Detailed information about the discipline** | | | | | | | | | | | | | | | | | |
| 6.1 | | Academic year:  2023-2024 | | | | | | | | | | | 6.3 | | Timetable:  8.00 till 14.00 | | | | |
| 6.2 | | Semester:  5 semester | | | | | | | | | | | 6.4 | | Location  (educational building, office, platform and link to the meeting of learning using distance learning technologies):  City Clinical Hospital №1, City Clinical Hospital №7, Central City Clinical Hospital, City Clinical Infectious Diseases Hospital named after Zhekenova) | | | | |
| **7.** | | **Discipline leader** | | | | | | | | | | | | | | | | | |
| Position | | | | | | Full name | | | | | | | Department | | Contact information  (e-mail) | | Consultations before exams | | |
| Candidate of Medical Sciences | | | | | | Akparova Almira | | | | | | | Department of Clinical Disciplines | | 8 775 259 22 99 | | Before the examination session within 60 minutes | | |
| **8.** | | **The content of the discipline** | | | | | | | | | | | | | | | | | |
|  | | Name of the discipline | | | | | | | | | | | | Quantity of hours | | Conducting form | | | |
|  | | Infectology, pulmonology, allergology, cardiology.  Viral and bacterial infections | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center  4. Mini-conference of the ISW topics | | | |
|  | | Particularly dangerous infections | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | HIV infection | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | Community-acquired pneumonia. Complications of pneumonia. Suppurative lung diseases. Sepsis. Disseminated intravascular coagulation syndrome. Hospital-acquired pneumonia and pneumonia in immunocompromised individuals. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | Bronchial asthma. COPD | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | Anaphylaxis, anaphylactic shock, Quincke's edema. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | Lyell's syndrome and other severe allergic reactions. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | IHD. Arterial hypertension. Hypertensive crisis. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | Acute coronary syndrome (ACS). Cardiogenic shock. Acute vascular insufficiency. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | Arrhythmias. Paroxysmal rhythm disturbances | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
| **Midterm control 1** | | | | | | | Summative evaluation:  2 stages:  1-stage – MCQ testing for understanding and application - 40%  2-stage – mini clinical exam (MiniCex) - 60% | | | | | | | | | | | | |
|  | | Acute rheumatic fever and chronic rheumatic heart disease. Heart defects (congenital and acquired).  Infectious endocarditis. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center  4. Mini-conference of the ISW topics | | | |
|  | | Systemic connective tissue diseases. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center  4. Mini-conference of the ISW topics | | | |
|  | | Systemic vasculitis. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center  4. Mini-conference of the ISW topics | | | |
|  | | Diseases of the esophagus. Gastrointestinal tract tumors. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | Chronic gastritis, duodenitis. Peptic ulcer of the stomach and duodenum. Anemia. IDA, B-12 – deficiency anemia. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | Viral hepatitis. Cholesterosis, chronic cholecystitis, cholelithiasis. Chronic pancreatitis. Nonspecific ulcerative colitis. Crohn's disease. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | Diabetes. Emergency conditions in diabetes mellitus. Obesity and metabolic syndrome. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | Diseases of the thyroid gland and parathyroid glands | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | Diseases of the hypothalamic-pituitary system and adrenal glands. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | The main syndromes of kidney disease, urinary tract infection. Glomerular diseases. Acute kidney injury. Chronic kidney disease. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
|  | | Leukemia, radiation sickness. | | | | | | | | | | | | 6 | | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center | | | |
| **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 – ОSCE 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 (<https://classroom.google.com/w/MzM5OTU5MjU0OTM0/t/all>)  CBL – Case Based Learning (<https://www.queensu.ca/ctl/resources/instructional-strategies/case-based-learning#:~:text=What%20is%20Case%2DBased%20Learning,group%20to%20examine%20the%20case>.) | | | | | | | | | | | | | | | | | |
| 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** *(indicate grades)* | | | | | | | | | | | | | | | | | |
| **№** | **Forms of control** | | | | | | | | | **General % from total %** | | | | | | | | |
| 1 | Curation,  clinical skills | | | | | | | | | 20% (estimated by the checklist) | | | | | | | | |
| 2 | Student's independent work (case, video, simulation OR student's research work - thesis, report, article) | | | | | | | | | 10% (estimated by the checklist) | | | | | | | | |
| 3 | Border control | | | | | | | | | 70%  (1-stage – MCQ testing for understanding and application - 40%;  2- stage – mini clinical exam (MiniCex) - 60%) | | | | | | | | |
| **Total border control 1** | | | | | | | | | | | 20 + 10 + 70 = 100% | | | | | | | | |
| 5 | Patient history defence | | | | | | | | | 20% | | | | | | | | |
| 6 | Student's independent work | | | | | | | | | 10% | | | | | | | | |
| 7 | Border control | | | | | | | | | 70%  (1-stage – MCQ testing for understanding and application - 40%;  2- stage – mini clinical exam (MiniCex) - 60%) | | | | | | | | |
| **Total border control 2** | | | | | | | | | | | 20 + 10 + 70 = 100% | | | | | | | | |
| 9 | Exam | | | | | | | | | **2 stages:**  1st stage - testing on MCQ for understanding and application - 40%  2nd stage - OSCE with NP - 60% | | | | | | | | |
| 10 | **Final score:** | | | | | | | | | overall admission rating 60% + Exam 40%  (1st stage - testing on MCQ for understanding and application - 40%  2nd stage - OSCE with NP - 60% | | | | | | | | |
| **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) | | | | |
| А | | | | 4,0 | | | | | 95-100 | | | | | | **Assessment Description**  (changes should be made only at the level of the decision of the Academic Committee on the quality of the faculty) | | | | |
| А- | | | | 3,67 | | | | | 90-94 | | | | | | **Excellent.** Exceeds the highest job standards. | | | | |
| В+ | | | | 3,33 | | | | | 85-89 | | | | | | **Excellent.** Meets the highest job standards. | | | | |
| В | | | | 3,0 | | | | | 80-84 | | | | | | **Good.** Very good. Meets high job standards. | | | | |
| В- | | | | 2,67 | | | | | 75-79 | | | | | | **Good.** Meets most of the job standards. | | | | |
| С+ | | | | 2,33 | | | | | 70-74 | | | | | | **Good.** More than enough. Shows some reasonable ownership of the material. | | | | |
| С | | | | 2,0 | | | | | 65-69 | | | | | | **Good.** Acceptable.  Meets the basic standards of the task. | | | | |
| С- | | | | 1,67 | | | | | 60-64 | | | | | | **Satisfactory.** Acceptable. Meets some basic job standards. | | | | |
| D+ | | | | 1,33 | | | | | 55-59 | | | | | | **Satisfactory.** Acceptable. Meets some basic job standards. | | | | |
| D | | | | 1,0 | | | | | 50-54 | | | | | | **Satisfactory.**  Minimally acceptable. | | | | |
| 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) | | | | | | | | | | | | | | | | | |
| Literature | | | | | **Main**  **Available in the library**   |  |  |  | | --- | --- | --- | | **Author** | **Name of the book, publisher** | **Year of publication** | | Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine | Elsevier. 3d edition, Chapter 12, p 320-323 – **1 экземпляр** | 2014 | |  |  |  | | Talley N.J., Connor”s. | Clinical examination. 8th edition. р.992 | 2018 |   **Missing in the library**   |  |  |  | | --- | --- | --- | | **Author** | **Name of the book, publisher** | **Year of publication** | | Harrison’s Principle’s of internal medicine. | Harrison’s Principle’s of internal medicine, 20-edition. | 2018 | | Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine | Elsevier. 3d edition, Chapter 12, p 320-323 – 1 экземпляр | 2014 | | Internal Medicine for Dentistry 1st Edition by Louis F. Rose, Donald Kaye. CRC Press. | | 2017 | | Nejat Düzgüneş. Medical Microbiology and Immunology for Dentistry. Quintessence Publishing Co., Inc. | | 2015 | | | | | | | | | | | | | |
| **Additional**  **Available in the library**   |  |  |  | | --- | --- | --- | | **Author** | **Name of the book, publisher** | **Year of publication** | | Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine | Elsevier. 3d edition, Chapter 12, p 320-323 – 1 экземпляр | 2014 | | Внутренние болезни: учебник: в 2-х т. / М-во науки и высшего образования РФ; под ред.: А. И. Мартынов [и др.]. Т. 1, 772, [2] с. | | 2021 | | Внутренние болезни: учебник : в 2-х т. / М-во науки и высшего образования РФ; под ред.: А. И. Мартынов [и др.]. Т. 2, 693, [2] с | | 2021 |   **Имеется на кафедре (ссылка на Classroom)**   |  |  |  | | --- | --- | --- | | **Author** | **Name of the book, publisher** | **Year of publication** | | Frank J. Dowd, Bart Johnson, et al. | Pharmacology and Therapeutics for Dentistry. Mosby | 2016 | | Edited by David Schlossberg, MD, FACP | Clinical Infectious Disease SECOND EDITION | 2015 | | by Henry M. Adam, MD, FAAP Jane Meschan Foy, MD, FAAP | Signs & Symptoms IN PEDIATRICS | 2015 | | by Joseph Loscalzo, MD, PhD of Harvard Medical School;Chairman, Boston | HARRISON’S Cardiovascular Medicine | 2010 | | Mauss, Berg, Rockstroh, Sarrazin, Wedemeyer | Hepatology- A clinical textbook. | 2016 | | by Steven E. Weinberger, MD, FACP, Barbara A. Cockrill, MD, Jess Mandel, MD, FACP | PRINCIPLES OF PULMONARY MEDICINE, sixth edition | 2016 | |  |  |  | |  |  |  | |  |  |  | |  |  |  | | **С.**Ronco. | Critical Care Nephrology, 3rd Edition**.** 1456р | 2019 | | J. L. Jameson; J.Loscalzo. | Harrison’s Nephrology and Acid- Base Disorders, 3rd Edition, 336р. | 2017 |   Link to literature - https://classroom.google.com/u/1/c/NTczMDUxNDE1MjEy | | | | | | | | | | | | |
| Basic  (fundamental works published earlier than the required terms of relevance)  **Available in the library**   1. Ішкі аурулар пропедевтикасы Әдістемелік оқу құралы 2013 – 30 экземпляров 2. Пропедевтика внутренних болезней: учебник / Мухин Н.А., Моисеев В.С., М:,Геотар Медиа 2020г. – 10 экземмпляров 3. Ішкі аурулар пропедевтикасы: оқулық — М.: ГЭОТАР-Медиа,2015. — 672 б.: ил. Н.А. Мухин, В.С. Моисеев; қазақтіліндегі редакциясын басқарған Б.Б. Абдахина; жауапты редакторы В.А. Ткачев – 20 экземпляров   **Available at the department**   1. BATES' Guide to Physical Examination and History Taking, 12th edition 2. Macleod’s Clinical Examination 14th Edition, 2017 3. USMLE Step 2 CK Lecture Notes 2020. Internal Medicine 4. Lippincot Illustrated Reviews: Pharmacology, 7th Edition, 2019. 5. Robbins Essential Pathology, 2021. 6. USMLE Step 1 Lecture Notes 2021.Pathology | | | | | | | | | | | | |
| Electronic resources (including but not limited to: library electronic catalogue, scientific literature databases, databases, animation, modeling, professional blogs, websites, other electronic reference materials (e.g. video, audio, digests) | | | | | **Internet resources:**   1. Medscape.com - <https://www.medscape.com/familymedicine> 2. Oxfordmedicine.com - <https://oxfordmedicine.com/> 3. [Uptodate.com](about:blank) - <https://www.wolterskluwer.com/en/solutions/uptodate> 4. KDIGO- <https://kdigo.org/wp-content/uploads> 5. Osmosis - <https://www.youtube.com/c/osmosis> 6. Ninja Nerd - <https://www.youtube.com/c/NinjaNerdScience/videos> 7. Cor Medicale - <https://www.youtube.com/c/CorMedicale> - медицинские видео анимации на русском языке. 8. Lecturio Medical - <https://www.youtube.com/channel/UCbYmF43dpGHz8gi2ugiXr0Q> 9. SciDrugs - <https://www.youtube.com/c/SciDrugs/videos> - видео лекции по фармакологии на русском языке. 10. <https://meduniver.com/Medical/stomatologia/galobi_anamnez_stomatologii.html> | | | | | | | | | | | | |
| Simulators in the simulation center | | | | | 1. SAM (Student auscultation manikin) – student manikin for auscultation of the pathology of the Oran and systems  2. Mannequin-simulator for teaching percussion skills, palpation of the abdominal organs | | | | | | | | | | | | |
| 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. | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | |
| **12.** | | | **Tutor Requirements and Bonus System** | | | | | | | | | | | | | | | | |
| **Rules of academic conduct:**  **1) Appearance:**   * office attire (shorts, short skirts, open T-shirts are not allowed to visit the university, jeans are not allowed in the clinic) * clean ironed robe * 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) \* Availability of a vaccination passport or other document about the complete**  **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!**  **The teacher has the right to decide on the admission to classes of students who do not comply with the requirements of professional behavior, including the requirements of the clinical base!**  **Бонусная система:**  1. Participation in research work, conferences, olympiads, presentations, the student is rewarded by means of a bonus system in the form of encouragement - adding points to the student in one of the forms of summative assessment. | | | | | | | | | | | | | | | | | | | |
| **13.** | | | **Discipline policy** *(части, выделенные зеленым, пожалуйста, не изменяйте)* | | | | | | | | | | | | | | | | |
|  | | | 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.  **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 (out-doors) and the university. Punishment - up to the annulment of boundary control, in case of repeated violation - the decision on admission to classes is made by the head of the department  11. Respectful attitude towards colleagues regardless of gender, age, nationality, religion, sexual orientation.  12. Have a laptop / laptop / tab / tablet with you for training and passing MCQ tests for TBL, boundary and final controls.  13. Taking MCQ tests on phones and smartphones is strictly prohibited.  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.". | | | | | | | | | | | | | | | | |
| **14.** | | | **Principles of inclusive education (no more than 150 words).** | | | | | | | | | | | | | | | | |
|  | | | 1. **Constantly preparing for classes:**  For example, backs up statements with relevant references, makes brief summaries  Demonstrates effective teaching skills, assists in teaching others  **2. Take responsibility for your learning:**  For example, manages their learning plan, actively tries to improve, critically evaluates information resources  3. **Actively participate in group learning:**  For example, actively participates in discussions, willingly takes tasks  **4. Demonstrate effective group skills**  For example, takes the initiative, shows respect and correctness towards others, helps to resolve misunderstandings and conflicts.  5. **Skillful communication skills with peers**:  For example, he listens actively, is receptive to nonverbal and emotional signals  Respectful attitude  **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.  **7. High introspection:**  For example, recognizes the limitations of his knowledge or abilities, without becoming defensive or reproaching others  **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  **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)  **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 NOCER | | | | | | | | | | | | | | | | |
| **15.** | | | **Distance/Online Learning – Prohibited in Clinical Discipline**  *(части, выделенные зеленым, пожалуйста, не изменяйте)* | | | | | | | | | | | | | | | | |
| 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.  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) | | | | | | | | | | | | | | | | | | | |
| **16.** | | | **Approval and review** | | | | | | | | | | | | | | | | |
| Department head | | | | | | | | | | | | Signature | | | Professor Kurmanova Gaukhar | | | | |
| Teaching Quality Committee  and teaching faculty | | | | | | | | | | | | Protocol № | | | Confirmation date | | | | |
| Chairman of the Academic Committee of the Faculty of Medicine and Health | | | | | | | | | | | | Signature | | | Professor Kurmanova Gaukhar | | | | |
| Dean | | | | | | | | | | | | Signature | | |  | | | | |

**Topic plan and content of classes**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| № | Тopic | Content | Literature | Conduct form |
|  | 2 | 3 | 4 | 5 |
| 1 | Infectology, pulmonology, allergology, cardiology.  Viral and bacterial infections | Acute respiratory viral infections: ARVI, influenza, coronavirus infection. Epstein-Barr virus, cytomegalovirus are persistent infections. Human papillomavirus. Standard case definition, laboratory confirmation, treatment principles, prevention.  Infectious diseases accompanied by damage to the oropharynx: syphilis, candidiasis, diphtheria, herpes. Angular stomatitis. Diagnostics. Treatment. Prevention. Types of herpes virus found in humans. Herpes zoster. Diseases caused by different types of virus. | Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p 320-323 (Электронный ресурс).  3. <https://geekymedics.com/category/medicine/respiratory/>  <https://geekymedics.com/croup/>  <https://geekymedics.com/bronchiolitis/>  <https://meduniver.com/Medical/stomatologia/galobi_anamnez_stomatologii.html> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center  4. Mini-conference of the ISW topic  For topics for which RO is at the level of 1-2 |
| 2 | Particularly dangerous infections | Particularly dangerous infections: plague, tularemia, anthrax, brucellosis, hemorrhagic fevers (Crimean hemorrhagic fever, Ebola, Dengue, hemorrhagic fever with renal syndrome), meningococcal infection. DPOs subject to international and regional (national) supervision. Local measures upon detection of dangerous substances in accordance with the regulatory documents of the Republic of Kazakhstan. Etiology. Routes of transmission of infections. Diagnostics. Principles of treatment. Prevention. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  3. Harrison’s Nephrology and Acid- Base Disorders, 3rd Edition, J. L. Jameson; J.Loscalzo. 2017, 162-189 р.  History and Clinical Examination at a Glance Third edition Jonathan Gleadle 178-179 стр  Graham Douglas , Fiona Nicol . Macleods Clinical Examination. 13th Edition – 2013 year 137-165 Step-up\_to\_ Medicine\_ 4th\_edition\_2016, 79-88 pages | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 3 | HIV infection | HIV. Virion structure. Life cycle of the virus. HIV diagnostic algorithm. Laboratory diagnosis of HIV infection. Organization of epidemiological surveillance of HIV infection. Sources of infection, factors and routes of transmission, vulnerable populations. General clinical characteristics and classification of HIV infection in adults and adolescents. Leukoplakia of the oral cavity. Oral lichen planus. Immune status, viral load.  The concept of HIV-associated diseases and syndromes. Basics of antiretroviral therapy for HIV infection. Prevention of hospital-acquired HIV infection and occupational infection. The most common opportunistic diseases in HIV infection. Drug prevention of opportunistic infections (toxoplasmosis, Pneumocystis pneumonia, tuberculosis), indications for treatment. Schemes for the prevention of certain nosologies. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  History and Clinical Examination at a Glance Third edition Jonathan Gleadle 178-179 стр  Graham Douglas , Fiona Nicol . Macleods Clinical Examination. 13th Edition – 2013 year 137-165 Step-up\_to\_ Medicine\_ 4th\_edition\_2016, 79-88 pages  <https://www.ncbi.nlm.nih.gov/books/NBK333425/>  <https://www.ncbi.nlm.nih.gov/books/NBK470383/>  <https://gh.bmj.com/content/5/7/e002388>  <https://pubmed.ncbi.nlm.nih.gov/27281837/>  <https://www.termedia.pl/Journal/HIV_AIDS_Review_International_Journal_of_HIV_Related_Problems-106> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 4 | Community-acquired pneumonia. Complications of pneumonia. Suppurative lung diseases. Sepsis. Disseminated intravascular coagulation syndrome. Hospital-acquired pneumonia and pneumonia in immunocompromised individuals. | Chronic bronchitis: etiology, pathogenesis, principles of diagnosis and treatment. Morphological changes in the bronchial apparatus. Indications for antibiotics.  Classification of pneumonia. Etiology of pneumonia. Criteria for the severity of pneumonia. Diagnosis of pneumonia. Criteria for hospitalization for pneumonia. CURB-65. Principles for choosing a method of antimicrobial therapy.  Pneumonia in persons with immunodeficiency: risk groups, etiology, treatment, prevention. Viral pneumonia. ARDS. Oxygen therapy. Infectious-toxic shock. Acute respiratory failure: causes of development, clinical picture, emergency care. Tuberculosis: etiology, diagnosis, clinical manifestations, treatment, prevention. Pleurisy: causes, classification, clinical picture, x-ray diagnosis. Additional diagnostic methods. Treatment. Sepsis as a systemic inflammatory response syndrome (SIRS). Differential diagnosis. Goals and tactics of treatment of patients with septic condition. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 358-363 (Электронный ресурс).  Harrison’s Nephrology and Acid- Base Disorders, 3rd Edition, J. L. Jameson; J.Loscalzo. 2017, page 43-58.  Harrisson’s Manual of Medicine/ 20th Edition, p. 2433-2449.  <https://doi.org/10.1177/2049936120969607>  <https://www.uspharmacist.com/article/updated-clinical-practice-guidelines-for-communityacquired-pneumonia>  <https://emedicine.medscape.com/article/807846-overview#a2>  <https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)61459-6/fulltext> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 5 | Bronchial asthma. COPD | Bronchial asthma: classification, etiology, immunopathogenesis, diagnostic principles, clinical manifestations. Principles of step therapy. Hormone dependence. Monitoring the effectiveness of treatment. Bronchodilators and bronchodilators: classification, mechanism of action, pharmacokinetics, indications and contraindications for use. Basic therapy of bronchial asthma. The main triggers of asthma attacks and exacerbations of asthma. Asthmatic status: clinical picture, rules of emergency care. Spirography: study of external respiration function. Indicators are normal and pathological. Diagnostic value of peak flowmetry.  Chronic obstructive pulmonary disease. Risk factors for COPD. Key links in the pathogenesis of COPD. Global Strategy for the Diagnosis, Treatment and Prevention of COPD (GOLD). International classification of COPD. Clinical manifestations and diagnosis of COPD. Treatment of COPD: main groups of drugs, stepwise therapy. Indications for hospitalization. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  3.Harrisson’s Manual of Medicine/ 20th Edition, p. 2332-2342, p. 2347-2405.  Davidson’s principles and practice of Medicine, 22nd edition, pgs 928, 943  <https://ginasthma.org/reports/>  <https://www.karger.com/Article/Fulltext/486797> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center  4. Mini-conference of the ISW topic  For topics for which RO is at the level of 1-2 |
| 6 | Anaphylaxis, anaphylactic shock, Quincke's edema. | Anaphylactic shock: causes, clinical variants, differential diagnosis. Emergency care algorithm.  Quincke's edema. Hereditary angioedema. Acute and chronic recurrent urticaria. Atopic dermatitis. Cheilitis, dysbiosis (vitamin deficiency). Causes of occurrence, mechanisms of development, treatment. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  Harrisson’s Manual of Medicine/ 20th Edition, Section 6, chapter 45, p. 276-281, p. 2342-2347, 2422-2433.  Bickley L. Bates' Guide to Physical Examination and History-Taking. Lippincott Williams & Wi  <https://aacijournal.biomedcentral.com/articles/10.1186/s13223-018-0288-z> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center  4. Mini-conference of the ISW topic  For topics for which RO is at the level of 1-2 |
| 7 | Lyell's syndrome and other severe allergic reactions. | Lyell's syndrome, Stevens-Johnson syndrome, erythema multiforme exudative, pemphigus. Etiology and pathogenesis. Clinical picture. Differential diagnosis. Principles of treatment. Forecast. | Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 384-400 (Электронный ресурс)  Harrisson’s Manual of Medicine/ 20th Edition, Section 6, chapter 44, p. 272-276, p. 281-285, p. 2405-2414.  Talley and O’connor’s Clinical Examination 8th edition. Chapter 14, 274-276 стр.  <https://www.reliasmedia.com/articles/16029-erythema-multiforme-stevens-johnson-syndrome-and-toxic-epidermal-necrolysis> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center  4. Mini-conference of the ISW topic  For topics for which RO is at the level of 1-2 |
| 8 | IHD. Arterial hypertension. Hypertensive crisis. | Cardiac ischemia. Classification. Angina pectoris: criteria for identifying functional classes, clinical picture, differential diagnosis. Variant angina. Silent myocardial ischemia. Microvascular angina (syndrome X). Pharmacotherapy of coronary artery disease: the use of antianginal, thrombolytic, anticoagulant drugs, disaggregants. Modern invasive treatment methods (balloon angioplasty, stenting, coronary artery bypass grafting).  Arterial hypertension. Mechanisms of blood pressure increase. Classification of hypertension. Cardiovascular risk stratification. Principles of treatment. Lifestyle changes. Rules for measuring blood pressure. Modern approaches to the treatment of hypertension. Drug therapy with single drugs and combination treatment. Indications and contraindications for use, pharmacokinetics of antihypertensive drugs. Features of antihypertensive therapy in patients with complicated arterial hypertension and in pregnant women. Malignant hypertension syndrome. Classification of hypertensive crisis. Drugs for relieving hypertensive crisis. The choice of drugs takes into account the characteristics of the development of a crisis in a given patient. Rules for lowering blood pressure. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://www.internationaljournalofcardiology.com/article/S0167-5273(20)32112-4/fulltext>  <https://www.who.int/publications/i/item/9789240033986>  <https://www.sciencedirect.com/science/article/pii/S1050173819300684> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 9 | Acute coronary syndrome (ACS). Cardiogenic shock. Acute vascular insufficiency. | Definition and classification, pathogenesis of ACS. Mechanisms of destabilization of atherosclerotic plaque and development of coronary artery thrombosis. Differential diagnosis. The role of biochemical markers of myocardial damage: troponins T and I, myoglobin, MB fraction of creatine phosphokinase in the diagnosis of ACS. Cardiogenic shock. Acute vascular insufficiency (collapse). Medical tactics, treatment and prevention of complications. Emergency care at the prehospital and hospital stage | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://www.jabfm.org/content/28/2/283> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 10 | Arrhythmias. Paroxysmal rhythm disturbances | Modern classification of rhythm and conduction disorders. Electrophysiological mechanisms of arrhythmias. Clinical diagnostic and differential diagnostic criteria for ventricular and supraventricular tachycardias, atrioventricular and intraventricular blocks. Modern classification of antiarrhythmic drugs. Drug treatment of arrhythmias. Emergency care for syncope caused by arrhythmia and paroxysmal rhythm disturbances. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://www.researchgate.net/publication/298081048_Arrhythmias_and_their_Management> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 11 | Acute rheumatic fever and chronic rheumatic heart disease. Heart defects (congenital and acquired).  Infectious endocarditis. | Acute rheumatic fever. Chronic rheumatic heart disease. Features of the clinical course of rheumatic fever in modern conditions. Flow options. Cardiac involvement and extracardiac manifestations. Classification. Differential diagnostic criteria. Basic principles of modern complex antirheumatic therapy. Primary and secondary prevention. Indications for surgical treatment. Pharmacotherapy.  Congenital heart defects: classification, symptomatology, stages of progression, differential diagnosis, indications for surgical treatment. The significance of pathological heredity and infectious diseases of the mother in pathogenesis.  Acquired heart defects: classification, diagnosis, echocardiographic criteria, complications, treatment.  Infective endocarditis: diagnostic criteria, clinical manifestations and treatment tactics. Acute bacterial infective endocarditis. Endocarditis of prosthetic valves. Laboratory research. Treatment. Prescription of antibacterial therapy. Criteria for cure. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://emedicine.medscape.com/article/1962779-overview>  <https://heart.bmj.com/content/100/17/1317> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 12 | Systemic connective tissue diseases. | Rheumatoid arthritis: articular syndrome, course, diagnostic criteria according to ARA, classification. Serodiagnosis, laboratory and radiological characteristics. Course and prognosis. Basic principles of therapy for rheumatoid arthritis.  Ankylosing spondylitis (Bechterew's disease). Epidemiology, pathogenesis, immunogenetics. HLA-DR27. Methods of objective research. Clinical manifestations of damage to the osteoarticular system. Systemic manifestations of AS. X-ray picture. Differential diagnosis. Flow. Principles of treatment. Forecast.  Sjogren's syndrome: etiology, clinical manifestations, diagnosis and treatment.  Reactive arthritis and Reiter's syndrome: etiology, immunopathogenesis, immunogenetics. Features of the clinical course, differential diagnosis. X-ray signs. Principles of treatment. Link to HIV infection.  Psoriatic arthritis: features of articular syndrome, P-signs. Extra-articular manifestations. Criteria for diagnosis. Link to HIV infection. Principles of treatment. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://www.rheumatology.org/Portals/0/Files/2021-ACR-Guideline-for-Treatment-Rheumatoid-Arthritis-Early-View.pdf> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 13 | Systemic vasculitis. | General principles of immunopathogenesis of systemic vasculitis, classification, diagnostic approaches. Immunodiagnostics, the role of ANCA. Diagnostic criteria and principles of treatment of polyarteritis nodosa, cryoglobulinemic vasculitis, hemorrhagic vasculitis, Behcet's disease, Takayasu's disease. Concept of Wegener's granulomatosis, Kawasaki disease | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://www.rheumatology.org/Portals/0/Files/Guideline-Management-ANCA-Associated-Vasculitis-2021.pdf> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 14 | Diseases of the esophagus. Gastrointestinal tract tumors. | Differential diagnostic criteria for achalasia cardia, esophagospasm, gastroesophageal reflux disease, hiatal hernia. Modern methods of treatment. Barrett's esophagus. Tumors of the esophagus. Diagnosis criteria. Methods for early detection of the disease. Screening. The role of endoscopy and biopsy in making a diagnosis. Prevention. Laryngeal cancer: etiology, classification, clinical picture, early diagnosis, treatment. Surgical reconstruction of the larynx. Tongue cancer: symptoms, diagnosis and treatment. Stomach cancer: risk factors, clinical manifestations, modern methods of diagnosis and treatment. Intestinal tumors. Clinical manifestations. Methods of diagnosis and treatment. Screening for colorectal cancer. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5749547/> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 15 | Chronic gastritis, duodenitis. Peptic ulcer of the stomach and duodenum. Anemia. IDA, B-12 – deficiency anemia. | Gastritis: classification, morphological diagnostic criteria. Methods for detecting Helicobacter pylori. Modern methods of diagnosis and treatment, differential diagnosis.  Peptic ulcer: diagnostic criteria, differential diagnosis, modern treatment tactics, complications, prevention.  Anemia: determination of the leading pathogenetic variant, diagnosis. Iron-deficiency anemia. Daily iron requirement. Iron absorption. Clinical and laboratory diagnosis of sideropenic and anemic syndrome. Treatment. Characteristics of iron preparations. Indications for oral and parenteral use of iron preparations. Indications for blood transfusions.  B-12 - deficiency anemia: the role of vitamin B-12 in hematopoiesis, the autoimmune mechanism of pathogenesis, the main clinical syndromes. Laboratory and instrumental diagnostics. Diagnosis of megaloblastic anemia. Differential diagnosis with folate deficiency anemia, hypoplastic anemia, acute leukemia. Treatment. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://link.springer.com/article/10.1007/s11938-020-00298-8>  <https://www.ncbi.nlm.nih.gov/books/NBK534792/> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 16 | Viral hepatitis. Cholesterosis, chronic cholecystitis, cholelithiasis. Chronic pancreatitis. Nonspecific ulcerative colitis. Crohn's disease. | Viral hepatitis (B, C, delta). Classification of viral hepatitis (Los Angeles 1994). Biochemical markers of liver damage. ELISA, PCR diagnostics of viral hepatitis. Clinical manifestations of viral hepatitis. Main syndromes. Outcomes. Primary prevention, vaccination of the population and risk groups.  Cholesterosis, chronic cholecystitis: main symptoms. Cholestasis syndrome. Ultrasound methods for diagnosing stones in the gallbladder, retrograde cholangiopancreatography. Laparoscopic cholecystectomy. Modern methods of treatment. Differential diagnosis and treatment of diseases of the biliary tract and pancreas. Emergency care for biliary colic and acute pancreatitis  Classification of chronic pancreatitis. Biochemical markers of chronic pancreatitis. Coprogram. Clinical and diagnostic criteria of the disease. Main groups of drugs. Emergency treatment of acute pancreatitis  The main causes and mechanisms of intestinal damage in UC and Crohn's disease. Features of the clinic. Intestinal and extraintestinal manifestations of the disease. Differential diagnostic criteria for the disease. Colonoscopy and biopsy. Modern therapeutic tactics. Prevention and prognosis. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://radiopaedia.org/cases/gallbladder-cholesterolosis-and-adenomyomatosis-ceus>  <https://socgastro.org.br/novo/wp-content/uploads/2021/01/ACG_Clinical_Guideline__Chronic_Pancreatitis.9.pdf> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 17 | Diabetes. Emergency conditions in diabetes mellitus. Obesity and metabolic syndrome. | Diabetes mellitus type 1 and 2: etiology, pathogenesis, classification (WHO, 1999) and differential diagnostic criteria, prevalence. Metabolic disorders in diabetes mellitus. Complications of diabetes. Diabetic neuropathy, retinopathy, nephropathy. Diagnostics. Treatment.  Diagnostic criteria and emergency care for ketoacidotic, lactic acidemic, hyperosmolar and hypoglycemic coma. Diabetic ketoacidotic coma: causes leading to its development, pathogenesis, clinical picture, stages of development, doctor’s tactics at all stages, treatment. Hypoglycemic, hyperosmolar and lactic acidemic coma: causes, pathogenesis, clinical picture, treatment.  Obesity and metabolic syndrome: definition, pathogenesis, clinical manifestations, forms. Diagnosis and principles of treatment of metabolic syndrome. Classes of lipoproteins (LP), fatty acids, phospholipids. Clinical manifestations of dyslipidemia. Laboratory diagnosis of disorders | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://www.sciencedirect.com/science/article/abs/pii/S1871402118304181?via%3Dihub> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center  Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 18 | Diseases of the thyroid gland and parathyroid glands | Thyroid diseases: classification, modern diagnostic methods. Thyrotoxicosis. Thyrotoxic heart. Thyrotoxic crisis. Treatment tactics with thyreostatics. Indications for radical treatment of thyroid diseases.  Hypothyroidism. Autoimmune thyroiditis (Hashimoto's goiter). Classification. Damage to the cardiovascular system in hypothyroidism. Hypothyroid coma: algorithm of diagnostic measures and treatment tactics. Basic principles of thyroid hormone replacement therapy. Endemic goiter. Principles of treatment and prevention.  Hypercalcemia and hypocalcemia, symptoms. Markers of bone formation and bone resorption, clinical significance. Bone imaging methods: densitometry, scintigraphy. Biopsy.  Hypoparathyroidism: definition, classification, etiology, pathogenesis, clinical picture, diagnosis and differential diagnosis. Principles of treatment of hypoparathyroidism. Hyperparathyroidism: definition, classification, etiology, pathogenesis, clinical picture, diagnosis and principles of treatment of primary and secondary hyperparathyroidism. Tertiary hyperparathyroidism. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://www.karger.com/article/fulltext/490384>  <https://emedicine.medscape.com/article/122393-guidelines>  <https://emedicine.medscape.com/article/122207-guidelines> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 19 | Diseases of the hypothalamic-pituitary system and adrenal glands. | Pituitary gland and hypothalamus: anatomy and physiology. Imaging methods of the hypothalamic-pituitary system: radiodiagnosis, scintigraphy with octreotide. Pituitary tumors: etiology, epidemiology, pathophysiology, diagnosis, treatment. Radiation therapy.  Hypothalamic syndrome: definition of the syndrome, classification, etiology, pathogenesis, clinic of various types of hypothalamic syndromes, diagnosis, modern approaches to treatment. Cushing's disease: definition of Cushing's disease and syndrome. Etiology, pathogenesis, clinic, diagnosis, treatment, employment, prognosis. Acromegaly and gigantism: definition, etiology and pathogenesis. Clinic, diagnosis and treatment of gigantism. Clinic, diagnosis and treatment of acromegaly. Hypopituitarism: etiology, pathogenesis, clinical picture, diagnostic tests, differential diagnosis, treatment.  Diabetes insipidus: definition, role of aldosterone and antidiuretic hormones in the regulation of urine volume. Classification, clinic, diagnosis, treatment.  Diagnostic criteria and treatment tactics for adrenal diseases. Tumors of the adrenal cortex: classification, etiology, clinical picture, diagnosis, differential diagnosis and treatment. Pheochromocytoma: clinical picture, diagnosis and differential diagnosis. Treatment | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://www.ncbi.nlm.nih.gov/books/NBK560743/>  <https://www.ncbi.nlm.nih.gov/books/NBK279088/>  <https://onlinelibrary.wiley.com/doi/full/10.1111/cen.13866> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 20 | The main syndromes of kidney disease, urinary tract infection. Glomerular diseases. Acute kidney injury. Chronic kidney disease. | The main syndromes in nephrology: hematuria, proteinuria, nephritic syndrome, nephrotic syndrome, renal failure syndrome (AKI, end-stage CKD), dysuria, arterial hypertension, pain syndrome, tubulointerstitial syndromes. Pathogenesis, differential diagnosis, treatment. Pathogenesis of hypertension and the role of hyperfiltration in the progression of kidney pathology. Metabolism and excretion of drugs by the kidneys (renal pharmacology) in normal and impaired renal function. Nephrotoxic drugs. UTI (cystitis, urethritis, acute pyelonephritis): diagnostic criteria, differential diagnosis, treatment.  Nephrotic syndrome. Classification. Diagnostics. Flow options. Complications of nephrotic syndrome. Forecast. Treatment tactics.  Clinical syndromes of glomerular damage. General diagnostic approaches. Complications. Morphological classification of glomerulonephritis. Biopsy: indications, contraindications and complications, technique. Principles of managing a patient with kidney pathology, etiopathogenetic treatment.  Prerenal, renal and postrenal AKI: causes, pathogenesis, features of the clinical course, differential diagnosis. RIFLE classification. Principles of treatment.  Chronic kidney disease. Stages of CKD. Diagnostic criteria. Damage to organs and systems in CKD. Treatment of CKD by stages. Indications for starting RRT. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://emedicine.medscape.com/article/440548-overview#a2>  <https://www.ncbi.nlm.nih.gov/books/NBK470444/> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |
| 21 | Leukemia, radiation sickness. | Leukemia: classification, etiology, clinical manifestations. Diagnosis of acute, chronic leukemia, lymphocytic leukemia, myeloid leukemia. Unfavorable prognostic factors. Treatment.  Acute and chronic radiation sickness: causes, clinical manifestations, diagnosis. Classification of chronic radiation sickness by severity. CRL due to uniform external irradiation. Treatment. Long-term consequences of irradiation. Gingivitis due to radiation sickness. | David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 12, p. 323-327 (Электронный ресурс).  <https://ashpublications.org/bloodadvances/article/4/15/3528/461693/American-Society-of-Hematology-2020-guidelines-for>  <https://emedicine.medscape.com/article/207631-guidelines> | Formative assessment:  1. Using active learning methods: TBL, CBL  2. Working with the patient  3. Training in the simulation center |

**Independent work of the student on topics**

|  |  |  |
| --- | --- | --- |
| **№** | **Topic of the lesson** | **The topic of student's independent work** |
| 1 | Infectology, pulmonology, allergology, cardiology.  Viral and bacterial infections | ISW: Infectious diseases accompanied by damage to the oropharynx: syphilis, candidiasis, diphtheria, herpes. |
| 2 | Particularly dangerous infections | Particularly dangerous infections: plague, tularemia, anthrax, brucellosis, hemorrhagic fevers (Crimean hemorrhagic fever, Ebola, Dengue, hemorrhagic fever with renal syndrome), meningococcal infection. Extraoral and intraoral examination of a dental patient. |
| 3 | HIV infection | Leukoplakia of the oral cavity. Oral lichen planus. Dentist tactics. |
| 4 | Community-acquired pneumonia. Complications of pneumonia. Suppurative lung diseases. Sepsis. Disseminated intravascular coagulation syndrome. Hospital-acquired pneumonia and pneumonia in immunocompromised individuals. | Pneumonia in persons with immunodeficiency: risk groups, etiology, treatment, prevention. |
| 5 | Bronchial asthma. COPD | Global Strategy for the Diagnosis, Treatment and Prevention of COPD (GOLD). International classification of COPD. |
| 6 | Anaphylaxis, anaphylactic shock, Quincke's edema. | Quincke's edema. Hereditary angioedema. |
| 7 | Lyell's syndrome and other severe allergic reactions. | Lyell's syndrome, Stevens-Johnson syndrome, erythema multiforme exudative, pemphigus. Differential diagnosis. |
| 8 | IHD. Arterial hypertension. Hypertensive crisis. | Malignant hypertension syndrome. |
| 9 | Acute coronary syndrome (ACS). Cardiogenic shock. Acute vascular insufficiency. | Acute coronary syndrome. Emergency care at the prehospital and hospital stage. |
| 10 | Arrhythmias. Paroxysmal rhythm disturbances | Emergency care for syncope caused by arrhythmia and paroxysmal rhythm disturbances. |
| 11 | Acute rheumatic fever and chronic rheumatic heart disease. Heart defects (congenital and acquired).  Infectious endocarditis. | Congenital heart defects: classification, symptomatology, stages of progression, differential diagnosis, indications for surgical treatment. |
| 12 | Systemic connective tissue diseases. | Systemic manifestations of AS. |
| 13 | Systemic vasculitis. | Diagnostic criteria and principles of treatment of polyarteritis nodosa, cryoglobulinemic vasculitis, hemorrhagic vasculitis, Behcet's disease, Takayasu's disease. |
| 14 | Diseases of the esophagus. Gastrointestinal tract tumors. | Gastrointestinal tumor markers |
| 15 | Chronic gastritis, duodenitis. Peptic ulcer of the stomach and duodenum. Anemia. IDA, B-12 – deficiency anemia. | Clinical and laboratory diagnosis of sideropenic and anemic syndrome. |
| 16 | Viral hepatitis. Cholesterosis, chronic cholecystitis, cholelithiasis. Chronic pancreatitis. Nonspecific ulcerative colitis. Crohn's disease. | Extraintestinal manifestations of IBD.  Viral hepatitis, diagnosis and treatment. |
| 17 | Diabetes. Emergency conditions in diabetes mellitus. Obesity and metabolic syndrome. | Dental manifestations in diabetes. |
| 18 | Diseases of the thyroid gland and parathyroid glands | Autoimmune thyroiditis (Hashimoto's goiter). |
| 19 | Diseases of the hypothalamic-pituitary system and adrenal glands. | Cushing's disease: definition of Cushing's disease and syndrome. |
| 20 | The main syndromes of kidney disease, urinary tract infection. Glomerular diseases. Acute kidney injury. Chronic kidney disease. | Nephrotoxic drugs. |
| 21 | Leukemia, radiation sickness. | Gingivitis due to radiation sickness. |

**RUBRICATOR FOR ASSESSING LEARNING OUTCOMES**

**with summative assessment**

**Rating calculation formula**

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

|  |  |
| --- | --- |
| Curation, clinical skills | 20% |
| ISW (case, video, simulation OR SRSW - thesis, report, article) | 10% |
| Border control | 70% |
| **Total for BC-1** | 100% |
| Medical history | 20% |
| ISW | 10% |
| Border control | 70% |
| **Total for BC-2** | 100% |

**Final score:** OAR 60% + exam 40%

**Exam (2 stages)** – MSQ testing (40%) + OSCE (60%)**ем**

**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) | 10 |
|  |  | **100%** |

**Point-rating assessment of practical skills at the bedside (maximum 100 points)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **№** | **Criteria**  **(assessed by a point system)** | **10** | **8** | **6** | **4** | **2** |
| ***excellent*** | ***above average*** | ***satisfactory*** | ***needs an amendment*** | ***unacceptable*** |
|  | **History taking** | | | | | |
| 1 | Communication skills when interviewing a patient | Introduced to the patient. He asked how to contact the patient. He spoke in a friendly tone, his voice was sonorous and clear. Polite wording of questions. He showed empathy for the patient - the posture of a doctor, approving "hoots". Asked open-ended questions. | Introduced to the patient. He asked how to contact the patient. He spoke in a friendly tone, his voice was sonorous and clear. Polite wording of questions. He showed empathy for the patient - the posture of a doctor, approving "hoots". Asked open-ended questions. | Introduced to the patient. He asked how to contact the patient. He spoke in a friendly tone, his voice was sonorous and clear. Polite wording of questions. Few open questions asked | He did not fully introduce himself to the patient, did not ask the patient's name, the student's speech was not intelligible, his voice was not intelligible. There are no open-ended questions, the patient answers in monosyllables. The student did not pay attention to the convenience of the patient, did not show empathy. | Communication with the patient is negative. The basic requirements for communicating with the patient are not met, there is no manifestation of empathy for the patient. |
| Collection of complaints | Identified the main and secondary complaints of the patient. **Revealed important details of the disease** (for example, when did edema appear, discoloration of urine, decreased urination, pain, increased blood pressure?). **Asked questions about differential diagnosis**. | Identified the main and secondary complaints of the patient. **Revealed important details of the disease** (for example, when did edema appear, discoloration of urine, decreased urination, pain syndrome, increased blood pressure? The nature of the pain syndrome?). | Identified the main complaints of the patient.  **Revealed important details of the disease.** | The student cannot distinguish major complaints from minor ones. **Did not reveal important details of the disease.** Asks random questions. | DIDN'T REVEAL any details of the disease. The collection of complaints is limited only by the subjective words of the patient himself. |
| Collecting anamnesis of the disease | He **revealed the chronology** of the development of the disease, important details of the disease (for example, when does swelling appear, pain in the lumbar region, discoloration of urine, decreased urination, increased blood pressure?). He **asked about the medications taken** for this disease. Asked **questions about differential diagnosis.** | He revealed **the chronology of the development of the disease**, important details of the disease (for example, when edema appeared, discoloration of urine, decreased urination, pain, increased blood pressure). He asked **about the medications taken** for this disease. | Identified **the chronology of the development** of the disease. He asked about **the medications** taken for this disease. | The student cannot build a chronology of the development of the disease. Asks random questions. | The stage was skipped by the student. There is only information said by the patient himself. |
| Anamnesis vitae | Revealed allergic anamnesis, chronic diseases, operations, blood transfusions, medications taken on an ongoing basis, family history, social status of the patient, occupational hazards, epidemiological history. | Identified an allergic history, chronic diseases, operations, medications taken on an ongoing basis, family history, social status of the patient, occupational hazards, epidemiological history | Revealed allergic anamnesis, chronic diseases, family anamnesis. | Revealed allergic anamnesis, family anamnesis. | The stage was skipped by the student. There is only information said by the patient himself. |
| 2 | Patient Interview Quality | The patient was interviewed sequentially in order, but depending on the situation and characteristics of the patient, the student changes the order of the survey. At the end sums up - summarizes all questions and receives feedback from the patient (for example, let's summarize - you  fell ill 2 weeks ago, when swelling of the face and legs first appeared, a change in the color of urine, then they noticed a decrease in diuresis, right?).  Qualitatively detailed information was collected, suggesting a probable diagnosis.  **Uses a problem sheet** - is able to highlight the main and secondary problems. | The patient was interviewed sequentially in order.  Summarizes at the end – sums up all questions and gets feedback from the patient (e.g. let’s summarize – e.g. let’s summarize –  fell ill 2 weeks ago, when swelling of the face and legs first appeared, a change in the color of urine, then they noticed a decrease in diuresis, right?).  Qualitatively detailed information was collected, suggesting a probable diagnosis.  **Uses a problem sheet** - is able to highlight the main and secondary problems. | The sequence of the survey is broken, but the quality of the information collected suggests a probable diagnosis.  **Does not use a problem sheet -** does not know how to distinguish between major and minor problems. | Poll sequence is broken. The student repeats the same questions. The collected information is not of high quality, does not allow us to suggest a probable diagnosis.  **Does not use a problem sheet** - does not know how to distinguish between major and minor problems. | The survey was conducted inconsistently, the student asks random questions that are not related to this patient's case or does not ask questions at all.  **Does not use a problem sheet** - does not know how to distinguish between major and minor problems. |
| 3 | Time - management of patient interviews. Control over the situation. | The minimum time in a group spent interviewing a patient. The student is self-confident, fully in control of the situation and manages it. The patient is satisfied. | The survey was completed fairly quickly. The student is self-confident and in control of the situation. The patient is satisfied. | The time of questioning the patient is delayed, but does not cause discomfort to the patient. The student does not lose his temper. There is no negativity on the part of the patient. | Long survey, the student is wasting his time. The patient expresses discomfort with the protracted questioning. The student is not self-confident and is lost when communicating with the patient. | The survey ended without revealing important information. The survey drags on too long, the atmosphere of communication is negative. Possible conflict with the patient. |
| **PHYSICAL EXAMINATION OF THE PATIENT** | | | | | | |
|  |  | **10** | **8** | **6** | **4** | **2** |
| ***excellent*** | ***above average*** | ***satisfactory*** | ***needs an amendment*** | ***unacceptable*** |
| 4 | Communication skills during the physical examination of the patient | Asked the patient (or relatives, parents, guardians) for consent to conduct a physical examination. Explained to the patient what and how to check (for example, I will listen to your lungs with a stethoscope, check the stomach with my hand, palpate the kidneys, bladder) | Asked the patient (or relatives, parents, guardians) for consent to conduct a physical examination. Explained to the patient what and how to check (for example, I will listen to your lungs with a stethoscope, check the stomach with my hand, palpate the kidneys, bladder) | Asked the patient (or relatives, parents, guardians) for consent to conduct a physical examination. Explained to the patient what and how to check (for example, I will listen to your lungs with a stethoscope, I will check the stomach with my hand) | Asked the patient (or relatives, parents, guardians) for consent to conduct a physical examination. | Contact with the patient's body without prior consent. |
| 5 | Assessment of the patient's level of consciousness on the Glasgow scale. | Accurately calculated scores on the scale. Correctly uses medical terminology to indicate the level of consciousness. | Accurately calculated scores on the scale. Correctly uses medical terminology to indicate the level of consciousness. | The error in the assessment on a scale of not more than 2 points. Knows the terminology to indicate the level of consciousness. | The error in the assessment on a scale of more than 3 points. Confused in medical terminology. | Does not know Glasgow scale criteria. Can't use. He does not know the differentiation of the level of consciousness. |
| Assessment of the patient's vital signs - heart rate, respiratory rate, blood pressure, body temperature, body mass index. | Technically correctly measured vital signs. Uses medical terminology correctly when evaluating vital signs (e.g. tachypnea, tachycardia, hypoxia, etc.) | Technically correctly measured vital signs. Uses medical terminology correctly when evaluating vital signs (e.g. tachypnea, tachycardia, hypoxia, etc.) | Small errors in the technique of measuring vital signs. The measurement results are not distorted. The student can correct the mistakes made in the use of medical terminology. | Gross errors in the technique of measuring vital signs, distortion of the results. Cannot correct errors in medical terminology on his own. | Does not own the technique of measuring vital signs. He does not know the normative data for assessing blood pressure, pulse, respiratory rate, saturation, body temperature. |
| 6 | Technique for the physical examination of the patient. | Physical examination of the patient was carried out according to the systems, according to the established procedure, the technique of palpation, auscultation and percussion is correct. **Explains to the patient what changes are found, and what should be the norm.**  **All important physical data (both pathological and normal) for a probable diagnosis were identified.**  **The student is able to change the order of examination depending on the identified symptoms.Details the identified symptoms (for example, did you notice swelling in the legs? How long ago did you notice it? Edema intensifies in the evening or in the morning? When did the change in urine color appear, etc.)**  **At the end, he sums up the correspondence of the changes identified during the physical examination to the complaints and the patient's history.** | The physical examination of the patient was carried out systemically in order, the technique of palpation, auscultation and percussion was correct.  **Explains to the patient what changes are found, and what should be the norm.**  All important physical data (both pathological and normal) for a probable diagnosis were identified.  **Details the identified symptoms (for example, did you notice swelling in the legs? How long ago did you notice it? Edema intensifies in the evening or in the morning? When did the change in urine color appear, etc.)** | The physical examination of the patient was carried out in violation of the systemic order, but without causing inconvenience to the patient. The technique of palpation, auscultation and percussion is satisfactory, it requires minor correction by the teacher.  The main violations sufficient for a probable diagnosis were identified. | The physical examination was not carried out systematically, the patient got up several times, lay down, changed his position, and experienced inconvenience.  Only selected systems are covered,  The technique of performing palpation, percussion, auscultation required significant correction by the teacher.  Confused in the definition of normal and pathological changes. No major violations were identified.  Not enough data to make a probable diagnosis. | During physical examination, gross violations - does not know the procedure and technique for conducting a physical examination of the patient.  Does not know the norm and pathology of physical data.  Cannot detect any violation. |
| 7 | Making a preliminary syndromic diagnosis | The most complete justification and formulation of a preliminary diagnosis with the justification of these complaints and physical examination, conducted a differential diagnosis for the main syndromes based on these complaints, the development of the disease, and the detected physical abnormalities. Understands the problem in a complex, connects with the characteristics of the patient.  Correctly appointed laboratory and instrumental examination, **taking into account the differential diagnosis** (that is, he named what he prescribed, for which the expected changes).  Explained to the patient important points in preparation for the examination (for example, if a general urine test, then hygiene of the external genital organs is mandatory, the first stream into the toilet, the rest to collect in a urine container.) | The most complete justification and formulation of a preliminary diagnosis with the justification of these complaints and physical examination  Correct and justified from the point of view of the underlying pathology.  Conducted differential diagnosis of the main syndromes.  Correctly called the necessary laboratory and instrumental examination for diagnosis, called the expected changes.  Explained to the patient important points in preparation for the examination. | Substantiation of the preliminary diagnosis based on complaints and physical examination  in terms of underlying pathology.  Determined the main examination for diagnosis. | A template or intuitive formulation of a provisional diagnosis cannot provide justification (i.e., link complaints, the chronology of symptom development, and physical findings).  The prescribed examination does not allow to confirm the diagnosis. | Formulation of the diagnosis at random, does not understand and does not see the connection between complaints and the patient's history.  The prescribed examination does not allow to confirm the diagnosis.  **The scheduled examination can harm the health of the patient.** |
| Plan of laboratory and visual examination (general blood test, biochemical blood test, urinalysis, ACR, ASLO, C-reactive protein, ELISA for HV, autoimmune diseases, etc., imaging methods, kidney biopsy) |
| 8 | Interpretation of the results of laboratory and instrumental research  (general blood test, biochemical blood test, urinalysis, ACR, ASLO, CRP, ELISA for VG, autoimmune diseases and biopsy results, ultrasound imaging methods, etc.) | Accurate full interpretation using medical terminology, understands the relationship / or discrepancy between the detected abnormalities and the preliminary diagnosis | Accurate full interpretation, using medical terminology | Identification of the main deviations in the analyzes, the correct use of medical terminology | Incomplete or not entirely correct interpretation, does not know normative data, errors in the use of medical terminology | Does not use medical terminology, does not know regulatory data |
| 9 | Formulation of the final syndromic diagnosis, with substantiation based on the results of the examination | The student clearly formulates the underlying disease. When formulating the underlying disease, the clinical classification of the disease is used. Gives an assessment of the severity of the disease. Names the complications of the underlying disease.  The student clearly substantiates his opinion on objective data (anamnesis, examination results).  For example: Nephritic syndrome. Poststreptococcal glomerulonephritis. | The student clearly formulates the underlying disease. When formulating the underlying disease, the clinical classification of the disease is used. Gives an assessment of the severity of the disease. Names the complications of the underlying disease.  The student clearly substantiates his opinion on objective data (history, examination results) For example: Nephritic syndrome. Poststreptococcal glomerulonephritis. | The student formulates the underlying disease. **Clinical classification is not complete.**  The student clearly substantiates his opinion on objective data (history, examination results) For example: Glomerulonephritis. | The student can only formulate the underlying disease. Cannot fully explain the rationale for the diagnosis.  For example: pneumonia (or equally perceived such answers as: lung tissue compaction syndrome, obstructive syndrome, acute respiratory failure syndrome, etc. | The student cannot formulate a diagnosis. Or fails to explain the rationale for the diagnosis (names the diagnosis at random according to the topic of the lesson) |
| 10 | Principles of treatment | Knows the basic groups i.e. the main drugs for the treatment of this disease, the mechanism of their action and the classification of these drugs.  Reasonably chooses drugs: taking into account the indications and contraindications in this patient. Informs the patient about the most important side effects of prescribed medications.  Informs the patient about the peculiarities of taking the drug (for example, after eating, drinking plenty of water, etc.)  I determined the criteria for the effectiveness of treatment, and the estimated time frame for improving the patient's condition.  He named the terms and methods of treatment control, subjective and objective data, data of laboratory and visualized control of treatment. | Knows the basic groups i.e. the main drugs for the treatment of this disease, the mechanism of their action and the classification of these drugs.  Determines the indications and contraindications for this patient.  Informs the patient about the most important side effects of prescribed medications.  Informs the patient about the peculiarities of taking the drug (for example, after eating, drinking plenty of water, etc.)  Determined the criteria for the effectiveness of treatment. | Knows only the basic principles of treatment. Names only a group of basic drugs for the treatment of this disease (for example, broad-spectrum antibiotics).  Knows the mechanism of action of the main drugs. | Knows only the basic principles of treatment. Can name only the class of drugs (eg, antibiotics, or antihypertensives). Does not know the classification of drugs. Explains the mechanism of action in general terms at the layman level (for example, antibiotics kill bacteria, etc.) |  |
|  | TOTAL | 100 | 80 | 60 | 40 | 20 |

**Score-rating assessment of medical history (maximum 100 points)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **№** | **Criteria**  **(assessed by a point system)** | **10** | **8** | **6** | **4** | **2** |
| ***excellent*** | ***above average*** | ***satisfactory*** | ***needs an amendment*** | ***unacceptable*** |
| 1 | Patient complaints: major and minor | Complete and systematized, with an understanding of important details | Accurate and Complete | main information | Incomplete or inaccurate, missing some details | Misses important |
| 2 | Collecting an anamnesis of the disease |
| 3 | Anamnesis of life |
| 4 | Objective status - general examination | Complete, efficient, organized, with an understanding of important details | Consistently and correctly | Master data discovery | Incomplete or not quite correct, not attentive to the convenience of the patient | Inappropriate data |
| 5 | Respiratory system | Full, efficient, technically correct application of all skills of inspection, palpation, percussion and auscultation | Complete, efficient, technically correct application of all examination skills, physical examination with minor errors, or corrected during performance | Basic data revealed  Physical examination skills learned | Incomplete or inaccurate  Physical examination skills need improvement | Missing important data  Inappropriate physical examination skills |
| 6 | **Cardiovascular system** |
| 7 | **Digestive system** |
| 8 | **Genitourinary system** | Full, efficient, technically correct application of all special examination skills |
| 9 | **Musculoskeletal system** | Full, efficient, technically correct application of all special examination skills |
| 10 | **Presentation of the medical history** | The most complete description and presentation  Understands the problem in a complex, connects with the characteristics of the patient | precise, focused; choice of facts shows understanding | precise, focused; choice of facts shows understanding | Many important omissions, often including unreliable or unimportant facts | Lack of control over the situation, many important omissions, many clarifying questions |

**Score-rating assessment of the CPC - creative task (maximum 90 points) + bonuses for English and time management**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **20** | **15** | **10** | **5** |
| **1** | **Problem solving** | Organized focused, highlights all related to the main problem identified with an understanding of the specific clinical situation | Organized, focused, highlights all issues related to the main identified problem, but there is no understanding of the specific clinical situation | unfocused,  Distraction to questions not related to the main problem identified | Неточный, упускает главное, несоответствующие данные. |
| **2** | **Informative, effective presentation** | Fully conveyed all the necessary information on the topic in a free, consistent, logical manner  Adequately selected product form | All the necessary information was conveyed in a logical manner, but with minor inaccuracies | All the necessary information on the topic is presented chaotically, with minor errors. | Important information on the topic is not reflected, blunders |
| **3** | **Significance** | The material was selected on the basis of reliably established facts.  Demonstrating understanding of the level or quality of evidence | Some conclusions and conclusions are formulated on the basis of assumptions or incorrect facts. No full understanding of the level or quality of evidence | Insufficient understanding of the problem, some conclusions and conclusions are based on incomplete and unproven data - dubious resources are used | Conclusions and conclusions are not justified or incorrect |
| **4** | **Logic and consistency** | The presentation is logical and consistent, has internal unity, the provisions in the product follow one from the other and are logically interconnected | It has internal unity, the provisions of the product follow one from the other, but there are inaccuracies | There is no consistency and logic in the presentation, but it is possible to trace the main idea | Jumps from one to another, hard to catch the main idea |
| **5** | **Literature analysis** | Literary data are presented in a logical relationship, demonstrate a deep study of the main and additional information resources | Literature data demonstrates the development of the main literature | Literary data is not always out of place, do not support the logic and evidence of presentations. | Inconsistency and randomness in the presentation of data, inconsistency  No basic knowledge |
| **6** | **Practical significance** | High | Good | moderate | no |
| **7** | **Focus on the interests of the patient** | High | Good | moderate | no |
| **8** | **Applicability in future practice** | High | Good | moderate | no |
| **9** | **Clarity of the presentation, quality of the report (speaker's assessment)** | Correctly, to the place all opportunities of Power Point or other e-softs, the free possession of material, a sure manner of statement are used | It is overloaded or are insufficiently used visual materials, inexact possession of material | Visual materials are not informative | Does not own material, is not able to explain it |
| **bonus** | **English/Russian/Kazakh\*** | The product is fully delivered in English/Russian/Kazakh language (checks by the head of the department)  + 10-20 points depending on quality | The product is prepared in English, delivered in Russian/Kaz  + 5-10 points depending on quality (or vice versa) | English-language sources were used in the preparation of the product  + 2-5 points depending on quality |  |
| **bonus** | **Time management \*\*** | Product delivered ahead of schedule  10 points are added | Product delivered on time - no points awarded | Delayed delivery without affecting quality  Minus 2 points | Released late  Minus 10 points |
| **bonus** | **Rating \*\*\*** | Additional points (up to 10 points) | Outstanding work such as:  Best Group Work  Creativity  Innovative approach to task completion  At the suggestion of the group | | |
|  | \* - for Kazakh / Russian groups - English; for groups studying in English - completing the task in Russian or Kazakh  \*Term - determined by the teacher, as a rule - the day of boundary control  \*\* thus, you can get a maximum of 90 points, in order to get above 90 - you need to show a result higher than expected | | | | |

**Point-rating assessment of practical skills at the bedside of the patient - curation (maximum 100 points)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **№** | **Criteria** | **10 points** | **8 points** | **6 points** | **4 points** |
| **History taking** | | | | | |
| 1. | Completeness and accuracy | Accurate, details the manifestations of the disease. Can identify the most important issue.  Focused on patient comfort | Gathers basic information, neat, identifies new problems. | Incomplete or unfocused. | Inaccurate, misses the point, irrelevant data. |
| 2. | Detail | Organized, focused, highlights all clinical manifestations with an understanding of the course of the disease in a particular situation. | Reveals the main symptoms | incomplete data | Demonstrates incorrect data, or their absence |
| 3. | Consistency | Establishing priorities of clinical problems in a relatively short time. | Unable to fully control the history taking process | Allows the patient to pull himself aside, thereby lengthening the time. Uses leading questions (leads the patient to an answer that may be wrong). | Asks questions incorrectly or finishes history taking early without identifying important issues. |
| 4 | Time management | Maximum efficiency in the shortest time | the time for collecting anamnesis is delayed | Wasting time inefficiently | Not in control of the whole situation. |
| **PHYSICAL EXAMINATION** | | | | | |
| 5. | The sequence and correctness of the physical examination | Performs correctly in sequence, confident, well-developed technique. | Knows the sequence, shows reasonable skill in preparing and performing the examination | Inconsistent, unsure, not fully proficient in examination skills, refuses to try basic examinations | Does not know the order and sequence of performing a physical examination, does not know its technique |
| 6. | Skill of a special survey on the instructions of the teacher\* |
| 7. | Efficiency | Revealed all the basic physical data, as well as details | Identified the main symptoms | incomplete data | Identified data that does not correspond to objective data |
| 8 | Ability to analyze revealed data | Changes the order of the examination depending on the identified symptoms, clarifies, details the manifestations. | Assumes a range of diseases with similar changes without clarification and specification of manifestations. | Cannot apply received interview and physical examination data to the patient. | Doesn't do analysis. |
|  |  | **20 points** | **16 points** | **12 points** | **8 points** |
| 9-10 | Communication skills | Won the favor of the patient even in a situation with a communication problem\* | Communication is quite effective | Satisfactorily | Failed to find patient contact |