



MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
INTERNATIONAL HUMANITARIAN UNIVERSITY

«ACCEPTED»

Scientific Council of  
International humanitarian  
university

Protocol No 7  
from 06.07. 2023

«APPROVED»

Rector of  
International humanitarian  
university

Professor K. HROMOVENKO

from «07» 07. 2023

The program is put into effect  
from 07.07. 2023 p.

EDUCATIONAL PROFESSIONAL PROGRAM  
MEDICINE

Field of knowledge – 22 Health care  
Specialty – 222 Medicine  
Educational degree – Master's degree

Odesa 2023

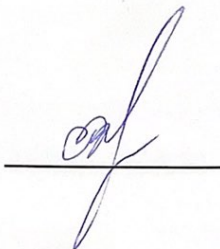
**Educational and professional program (EPP)**  
**"Medicine"**  
specialty 222 "Medicine"  
the second (Master's) level of higher education

**Pro-rector  
of scientific and medical  
work**



**L.KOVALEVSKA**

**Acting vice-rector for  
scientific and pedagogical  
work**



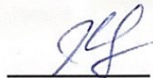
**L. RAICHEVA**

**Head of the Department of  
Internal Medicine**



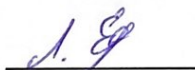
**L.YEFREMENKOVA**

**Dean of the Faculty of Medicine  
and public health**



**V. KUKUSHKIN**

**Guarantor of EPP "Medicine"**



**L.YEFREMENKOVA**

## PREFACE

The educational and professional program "Medicine" of the second (master's) level of higher education in specialty 222 "Medicine", field of knowledge 22 Health care was developed in accordance with the Law of Ukraine "On Higher Education", the Standard of Higher Education of the second (master's) level of higher education of the field of knowledge 22 "Health care" from the specialty "Medicine" (approved by the Order of the Ministry of Education and Science of Ukraine No. 1197 of 08.11.2021), discussed at the general labor meeting of the scientific and pedagogical staff of the Faculty of Medicine and Public Health of the International Humanitarian University, Resolution of the Cabinet of Ministers of Ukraine dated 29.04.2015 No. 266 "On approval of the list of fields of knowledge and specialties for which higher education applicants are trained", Resolution of the Cabinet of Ministers of Ukraine dated 23.11.2011 No. 1341 "On approval of the National Framework of Qualifications", as amended in accordance with Resolutions of the Cabinet of Ministers of Ukraine dated 12.06.2019 No. 509, dated 25.06.2020 No. 519, Resolutions of the Cabinet of Ministers of Ukraine dated 28.03.2018 No. 334 "On approval of the Procedure for the implementation of a unified state qualification exam for holders of a master's degree in the field of knowledge"22 Health care "I", Resolution of the Cabinet of Ministers of Ukraine dated 30.12.2015 No. 1187 "On the approval of the Licensing conditions for the implementation of educational activities of educational institutions" and other current regulatory documents, Regulations on the organization of the educational process at the International Humanitarian University. The educational and professional program is a normative document, which defines the profile of the educational and professional program in the specialty 222 "Medicine", the list of program components and their logical sequence, the number of ECTS credits required for the implementation of this program, the form of attestation of higher education applicants.

The educational and professional program was developed by the working group of the Faculty of Medicine and Public Health of the International Humanitarian University, consisting of:

**1. Lyudmila Nazarivna Yefremenkova – Doctor of medical sciences, Professor, Head of the department of internal diseases - guarantor of the OPP.**

**2. Lyudmila Andriivna Kovalevska - doctor of medical sciences, professor, professor of the department of internal diseases, vice-rector for scientific and medical work.**

**3. Vitaly Naumovich Kukushkin - Candidate of Medical Sciences, Associate Professor of the Department of Obstetrics, Gynecology and Pediatrics, Dean of the Faculty of Medicine and Public Health.**

**4. Polyasny Vyacheslav Oleksiyovych - Doctor of Medical Sciences, Professor, General Director of the "Odesa Regional Clinical Antitumor Center".**

**5. Sofiya Pavlivna Oshanina - 5th-year graduate of the International Humanitarian University majoring in "Medicine"**

Reviews - feedback from external stakeholders:

**1. General Director of the State University "Heart Institute of the Ministry of Health of Ukraine", corresponding member of the National Academy of Medical Sciences of Ukraine B.M. Todurov.**

**2. Medical Director of "House of Medicine" LLC, Candidate of Medical Sciences  
D.G. Havrychenko.**

**1. Profile of the educational and professional program in specialty 222 "Medicine"**

<b>1. General Information</b>	
<b>Full name of the higher educational institution and structural division</b>	International Humanitarian University, Faculty of Medicine and Public Health
<b>The degree of higher education and the title of the qualification in the original language</b>	Master of Medicine (MMed), Master of Medicine, specialty "Medicine"
<b>The official name of the educational program</b>	Educational and professional training program for the Master of Medicine in specialty 222 "Medicine" branch of knowledge 22 Health care
<b>Type of diploma and scope of the educational program</b>	Master's degree, single, Study period: 5 years and 10 months
<b>Cycle/level</b>	NRK of Ukraine – 7th level, FQ-EHEA – second cycle, EQF-LLL – Level 7
<b>Prerequisites</b>	Admission conditions are determined by the "Rules of admission to the International Humanitarian University". A person has the right to obtain a master's degree on the basis of a complete general secondary education, subject to the successful completion of an external independent assessment of the quality of education or a national multi-subject test (NMT). The International Humanitarian University also admits 222 persons who have obtained the educational and qualification level of a junior specialist or a professional junior bachelor in related specialties to the second year for obtaining a master's degree in the specialty "Medicine", provided they successfully pass the professional entrance exams.
<b>Language(s) of instruction</b>	English
<b>The term of validity of the educational program</b>	6 years
<b>Internet address of the permanent placement of the description of the educational program</b>	<a href="http://www.mgu.edu.ua">http://www.mgu.edu.ua</a>

## 2. The purpose of the educational and professional program

Training of specialists who are able to carry out diagnosis, differential diagnosis and treatment of patients at a high level in departments of various profiles, in particular in private medical institutions, in accordance with modern examination methods and the latest medical equipment; who will constantly improve their professional level and will be able to carry out scientific and pedagogical activities both in institutions of higher education and in structures belonging to the practical branch of medicine.

## 3. Characteristics of the educational and professional program

<b>Subject area (field of knowledge, specialty, specialization)</b>	Field of knowledge: 22 - "Health care" Specialty: 222 – "Medicine"
<b>Orientation of the educational program</b>	The educational and professional program has an applied orientation in the field of health care, diagnostics, treatment and prevention of human diseases.
<b>The main focus educational and scientific program</b>	Higher education in the field of knowledge 22 "Health care", specialties 222 "Medicine". The program is focused on training in the conditions of a corporate higher education institution, with the possibility of further employment in state and private medical and preventive institutions. Keywords: health care, medicine, higher education, master's degree, doctor
<b>Features of the program</b>	The uniqueness of OPP is determined by the combination of classical university education, which allows for the formation of clinical thinking in future doctors, which in the future will contribute to timely diagnosis, the development of preventive measures and complex treatment of diseases in accordance with social, household and epidemiological factors; with practice in educational and scientific treatment bases of the university (House of Medicine LLC, Odesa Regional Clinical Anticancer Center, Odesa Clinical Doctor on Railway Transport), with the possibility of combining the educational process with clinical practice; with an overwhelming focus on meeting the requirements and needs of patients of private clinics. An important element of training at the OPP is the completion of 4-6 weeks of practice in the intersemester period on clinical bases, which distinguishes training at the International Humanitarian University from training at other universities of the medical profile of the southern region.

## 4. Graduates' suitability for employment and further education

<p><b>Suitability for employment</b></p>	<p>The specialist is prepared to work according to DK 009-2010:  Section Q. Health care and social assistance  Chapter 86. Health care  Group 86.1 Activities of hospital institutions  Class 86.10 Activities of hospital institutions  Group 86.2 Medical and dental practice  Class 86.21 General medical practice  Class 86.22 Specialized medical practice  Group 86.9 Other health care activities  Class 86.90 Other health care activities  After graduating from the educational program of the master's degree in the specialty "Medicine", the specialist is able to perform professional work: an intern doctor (KP code - 3229).</p>
<p><b>Further education</b></p>	<p>For further professional training in the specialty "Medicine", a specialist must enroll in postgraduate education programs - internships (primary specialization), where training is carried out under educational programs in a certain specialty according to the list approved by the order of the Ministry of Health of Ukraine dated 23.02.2005 No. 81, and can also enroll in educational - scientific program for obtaining the degree of doctor of medicine.  After training in an internship, the specialist is assigned the qualification of a specialist doctor who is able to perform the professional work specified in DK 003:2010 and can hold the corresponding medical position:  Class 222 Professionals in the field of medicine (except nurses).  Subclass 2221 Professionals in the medical field (except stomatology).  Group 2221.2 Doctors.  Subclass 2225 Professionals in the field of medical and preventive care.  Group 2225.2 Doctors, specialists in the field of medical and preventive medicine.  Group 2229.2 Medical professionals (except nursing and midwifery).  In the future, specialists can undergo retraining and training in cycles of secondary specialization, and acquire another medical specialty and perform relevant types of professional activity. The growth of professional skills will ensure the continuous professional development of doctors in cycles of thematic improvement, information and internship, and other issues of post-graduate education.</p>
<p><b>5. Teaching and assessment</b></p>	
<p><b>Teaching and learning</b></p>	<p>The main types of educational classes under the OPP: lectures, practical classes, seminar classes, individual classes, consultations, defense of medical history, independent work under the guidance of a teacher, independent extracurricular work, industrial practice. Student-centered learning, problem-oriented learning, self-learning, learning through practice, combining educational activities of students with research, simulation learning, mixed, which makes it possible to meet the individual educational needs of students of higher education.</p>

<p><b>Assessment</b></p>	<p>Control measures for the evaluation of educational activities include current, intermediate and final control of knowledge, abilities and skills of students of higher education. Final control includes semester control and state certification of the applicants. The grades "Excellent", "Good", "Satisfactory" are issued: according to the results of the examination of production practices. The grade "Passed" is assigned based on the results of the assessments. The following types of control are provided by level at the university: self-control, departmental and ministerial (USQE). Self-monitoring is designed for independent assessment by students of the quality of assimilation of educational material from a certain discipline. Departmental control is carried out in order to assess the level of training of higher education applicants within the discipline at various stages of its study and is carried out in the form of entrance, current, borderline and final controls. Ministerial control is designed to diagnose the quality of the educational process, determine the strength of knowledge acquisition, and compare actual learning results with expected ones in accordance with the requirements set forth in regulatory documents.</p> <p>The scope and means of determining the level of assimilation of knowledge and formed abilities and skills, which are subject to control, are determined by the departments in the work program and syllabus of the academic discipline and are brought to the attention of students at the first classroom session. The unified state qualifying exam is conducted in accordance with the Procedure for conducting the unified state qualifying exam for master's degree holders in the field of knowledge "Health Care" and consists of the following components:</p> <ul style="list-style-type: none"> <li>- integrated test exams "KROK-1" and "KROK-2", which evaluate the compliance of the quality of training of specialists with the standards of higher education and are conducted by the State organization "Center for testing the professional competence of specialists with higher education in the fields of training "Medicine" and "Pharmacy" under the Ministry of Defense health of Ukraine"; the professional English language exam (ELPT), which assesses the professionally oriented English language competence of higher education applicants and is conducted by the State organization "Center for Testing the Professional Competence of Specialists with Higher Education in the Fields of Training "Medicine" and "Pharmacy" at the Ministry of Education of Ukraine;</li> <li>– an objective structured practical (clinical) exam that assesses the readiness of a graduate to carry out professional activities in accordance with the requirements of the higher education standard by demonstrating the practical (clinical) components of professional competence on a real object or on a model and is conducted by the examination board of a higher education institution.</li> </ul>
<p><b>Integral competence</b></p>	<p>The ability to solve complex specialized tasks and practical problems in professional activities in the field of health care in the specialty "Medicine", or in the learning process, which involves the implementation of a diagnostic search and is characterized by the complexity and complexity of conditions and requirements.</p>

<p><b>General competences (GC)</b></p>	<ol style="list-style-type: none"> <li>1. Ability to abstract thinking, analysis and synthesis.</li> <li>2. The ability to learn and master modern knowledge.</li> <li>3. Ability to apply knowledge in practical situations.</li> <li>4. Knowledge and understanding of the subject field and understanding of professional activity.</li> <li>5. Ability to adapt and act in a new situation.</li> <li>6. Ability to make informed decisions.</li> <li>7. Ability for interpersonal interaction and teamwork.</li> <li>8. Ability to communicate in a foreign language.</li> <li>9. Ability to search, process and analyze information from various sources, including the use of modern information technologies.</li> <li>10. Determination and persistence in relation to assigned tasks and assumed responsibilities.</li> <li>11. Awareness of equal opportunities and gender issues.</li> <li>12. The ability to realize one's rights and responsibilities as a member of society, to realize the values of a civil (free democratic) society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine.</li> <li>13. The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology.</li> </ol>
<p><b>Professional competences of the specialty (PC)</b></p>	<ol style="list-style-type: none"> <li>1. Ability to collect medical information about the patient and analyze clinical data.</li> <li>2. Ability to determine the necessary list of laboratory and instrumental studies and evaluate their results.</li> <li>3. The ability to establish a preliminary and clinical diagnosis of the disease.</li> <li>4. The ability to determine the necessary regime of work, rest and nutrition in the treatment and prevention of diseases.</li> <li>5. Ability to determine the principles and nature of treatment, rehabilitation and prevention of diseases.</li> <li>6. Ability to diagnose emergency conditions.</li> <li>7. Ability to determine tactics and provide emergency medical care.</li> <li>8. Ability to carry out medical evacuation measures.</li> <li>9. Ability to perform medical manipulations.</li> <li>10. Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.</li> <li>11. The ability to determine the tactics of physiological pregnancy, physiological childbirth and the postpartum period. Family planning counseling skills and contraceptive method selection.</li> <li>12. Ability to carry out sanitary and hygienic, preventive, in particular anti-epidemic, measures.</li> <li>13. Ability to carry out a work capacity examination.</li> <li>14. Ability to maintain medical documentation, including electronic forms.</li> <li>15. The ability to assess the impact of the environment, socio-economic and biological determinants on the state of health of an individual, family, population.</li> <li>16. The ability to analyze the activity of a doctor, unit, health care institution, ensure the quality of medical care and increase the efficiency of the use of medical resources.</li> <li>17. Ability to organize and integrate the provision of medical care to the</li> </ol>



	<p>population and marketing of medical services.</p> <p>18. Ability to conduct epidemiological and medical-statistical research on the health of the population; processing of social, economic and medical information.</p> <p>19. The ability to clearly and unambiguously convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to people who are studying.</p> <p>20. Ability to manage work processes in the field of health care, which are complex, unpredictable and require new strategic approaches. Ability to develop and implement scientific and applied projects in the field of health care.</p> <p>21. Compliance with ethical principles when working with patients and laboratory animals.</p> <p>22. Observance of professional and academic integrity, bear responsibility for the reliability of the obtained scientific results.</p>
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**1. Program learning outcomes (PLO)**

	<p>1. Have thorough knowledge of the structure of professional activity. Possess information on fundamental and clinical biomedical sciences, sufficient for effective professional activity in conditions of constant updating of fundamental and applied medical information. Critically consider existing problems and research results in the field of one's specialty. To be responsible for professional development, the ability for further professional training with a high level of autonomy.</p> <p>2. To highlight and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using preliminary data of the patient's history, data of the patient's examination, knowledge about the person, his organs and systems, establish a preliminary clinical diagnosis of the disease (according to list 2).</p> <p>3. Collect complaints, anamnesis of life and diseases, evaluate the psychomotor and physical development of the patient, the state of organs and systems of the body, based on the results of laboratory and instrumental studies, evaluate information about the diagnosis (according to list 4), taking into account the age of the patient.</p> <p>4. To establish a final clinical diagnosis by making a reasoned decision and analyzing the received subjective and objective data of clinical, additional examination, carrying out differential diagnosis, observing the relevant ethical and legal norms, under the control of the managing physician in the conditions of a health care institution ( according to list 2).</p> <p>5. Assign and analyze additional (mandatory and optional) examination methods (laboratory, functional and/or instrumental) (according to list 4), patients with diseases of organs and body systems for differential diagnosis of diseases (according to list 2).</p> <p>6. Determine the main clinical syndrome or what causes the severity of the victim/victim's condition (according to list 3) by making a reasoned decision and assessing the person's condition under any circumstances (in the conditions of a health care facility, outside its borders), including in conditions of emergency and hostilities, in field conditions, in conditions of lack of information and limited time.</p> <p>7. Determine the nature and principles of treatment (conservative, operative) of patients with diseases (according to list 2), taking into</p>
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account the age of the patient, in the conditions of a health care institution, outside its borders and at the stages of medical evacuation, including in field conditions, on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes, in case of the need to expand the standard scheme, be able to justify personalized recommendations under the control of the head physician in the conditions of a medical institution.

8. Determine the necessary mode of work, rest and nutrition on the basis of the final clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.

9. Determine the approach, plan and tactics of managing physiological pregnancy, physiological childbirth and the postpartum period by making a reasoned decision according to existing algorithms and standard schemes.

10. To assess the general condition of a newborn child by making a reasoned decision according to existing algorithms and standard schemes, observing the relevant ethical and legal norms.

11. Assess and monitor the child's development, provide recommendations on feeding and nutritional features depending on age, organize preventive vaccinations according to the calendar.

12. Determine tactics and provide emergency medical care in emergency situations (according to list 3) in limited time in accordance with existing clinical protocols and standards of treatment.

13. To organize the provision of medical aid and medical evacuation measures to the population and military personnel in emergency situations and hostilities, including in field conditions.

14. Form rational medical routes for patients; organize interaction with colleagues in their own and other institutions, organizations and institutions; to apply tools for the promotion of medical services in the market, based on the analysis of the needs of the population, in the conditions of the functioning of the health care institution, its division, in a competitive environment.

15. Perform medical manipulations (according to list 5) in the conditions of a medical institution, at home or at work on the basis of a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, observing the relevant ethical and legal.

16. To determine the state of functioning and limitations of a person's life activity and the duration of incapacity for work with the preparation of relevant documents, in the conditions of a health care institution, based on data about the disease and its course, peculiarities of the person's professional activity, etc. Maintain medical documentation regarding the patient and the contingent of the population on the basis of regulatory documents.

17. To plan and implement a system of anti-epidemic and preventive measures regarding the occurrence and spread of diseases among the population. Analyze the epidemiological situation and carry out measures for mass and individual, general and local prevention of infectious diseases. Plan, organize and carry out measures for the specific prevention of infectious diseases, including in accordance with the National calendar of preventive vaccinations, both mandatory

and recommended. Manage vaccine residues, organize additional vaccination campaigns, including immunoprophylaxis measures.

18. Search for necessary information in professional literature and databases of other sources, analyze, evaluate and apply this information. Apply modern digital technologies, specialized software, and statistical data analysis methods to solve complex healthcare problems.

19. Assess the impact of the environment on human health to assess the morbidity of the population.

20. To organize the necessary level of individual safety (own and the persons one cares about) in case of occurrence of typical dangerous situations in the individual field of activity.

21. Clearly and unambiguously convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists.

22. Make effective decisions in the field of health care, taking into account the available resources, social, economic and ethical consequences. Manage work processes in the field of health care, which are complex, unpredictable and require new strategic approaches, organize the work and professional development of personnel taking into account the acquired skills of effective teamwork, leadership positions, appropriate quality, accessibility and justice, ensuring the provision of integrated medical help.

23. Communicate freely in the state language and in English, both orally and in writing to discuss professional activities, research and projects.

24. To act in the professional sphere taking into account one's own freedom and safety in cooperation and understanding with members of society; to be able to make decisions and bear responsibility for them, to work effectively in a team.

**7. Resource support for program implementation**

**Staff**

The scientific and pedagogical staff of the university departments fully ensure the training of those seeking higher education in the specialty 222 "Medicine" in accordance with the Licensing Conditions (Resolution of the Cabinet of Ministers of Ukraine "On Approval of Licensing Conditions for Conducting Educational Activities of Educational Institutions" dated 12.30.2015 No. 1187 as amended from 10.05 . No. 347 of 2018). Replenishment of the high-quality staff of scientific and pedagogical workers will take place at the expense of scientific training at the graduate school of university graduates, which will be opened after the accreditation of this OPP, as well as at the expense of involving teachers with scientific degrees and academic titles in the pedagogical activity on a competitive basis by concluding contracts. Members of the support group, who implement the educational component of the educational and professional program, have qualifications corresponding to the specialty: higher education in a specialty, a scientific degree or academic title, a confirmed level of scientific and professional activity. Most of the scientific and pedagogical staff of the support group are full-time employees of the university. The teaching of lecture material for students of higher education is 100% provided by scientific and pedagogical workers who have a scientific degree and an academic title.

<p><b>Material and technical supply</b></p>	<p>The material and technical base of the Faculty of Medicine and Public Health allows to carry out the educational process, scientific and medical work at the modern level in accordance with the requirements of the state education standards regarding the training of specialists, the curriculum and programs of the components of the educational and professional program. The conditions of study of students of higher education at the university fully meet sanitary and hygienic requirements. The university has a total area of premises m2. The balance includes buildings, including: educational buildings (total area - m2), a sports and recreation complex, economic buildings, a recreation and sports camp. All buildings have technical passports. The area of educational premises, which are directly used in the educational process, is: educational premises, which are located in university buildings - m2, educational premises of departments, which are located in health care institutions, is - m2. Higher education students are trained at clinical facilities that have adequate material and technical support that meets the requirements for health care institutions. Diagnostic equipment is used at practical classes in clinics: ultrasound diagnostic equipment, computer tomography, X-ray diagnostic equipment, etc. Lecture halls are 100% equipped with multimedia equipment.</p> <p>The book supply of most components of the educational program meets the licensing requirements. There is a virtual reference service, interlibrary subscription. All library resources and services are presented online through the blog. The provision of students with computers during training fully meets the standards. The local network of the university is connected to the Internet using a fiber optic cable with a bandwidth of 1 Gb/s guaranteed flow. The material and technical base of the university for conducting practical classes in physical education and the work of sports sections is represented by sports halls and sports grounds.</p>
<p><b>Informational and educational and methodological support</b></p>	<p>Informational and educational and methodological support correspond to the licensing conditions for the implementation of educational activities for the training of specialists at the second (master's) level of higher education and are represented by: a schedule of the educational process, a curriculum, work programs of educational disciplines, thematic plans of lectures, practical and seminar classes, syllabi, criteria knowledge assessment, lists of questions for current and final tests, lists of questions for state exams, lists of situational and test tasks, lists of recommended educational and methodological literature, etc. The educational and methodical documentation was prepared by the scientific and pedagogical staff of the departments. Provision of students with educational materials from each component of the educational and professional program of the curriculum is 100%.</p> <p>The official website of the university <a href="http://www.mgu.edu.ua">http://www.mgu.edu.ua</a> contains basic information about its activities and an available electronic resource that contains educational and methodological materials from the components of the educational and professional program, including for the implementation of distance education.</p>
<p><b>8. Academic mobility</b></p>	
<p><b>National credit mobility</b></p>	<p>The right to national credit mobility is implemented on the basis of the Law of Ukraine "On Higher Education" and agreements between higher education institutions (scientific institutions) of Ukraine or their main structural subdivisions.</p>

<b>International credit mobility</b>	<p>In 2020, the International Humanities University signed a cooperation agreement with the University of Belgrade (Serbia), according to which students have the possibility of mobility and acquiring the necessary competences in Serbia with the possibility of receiving a scholarship with the corresponding credits. In addition, this agreement provides for teaching mobility, whereby the guarantor and members of the working group are able to teach and participate in doctoral dissertation defense committees at the University of Belgrade, and Serbian professors have the opportunity to teach and participate in doctoral dissertation defense committees of philosophy at Moscow State University.</p> <p>In 2019, Moscow State University concluded cooperation agreements with Xinyu University (China) and Hannan Medical University (China), which provides for academic cooperation and the exchange of teachers and students.</p> <p>From February 2021, a cooperation agreement between Moscow State University and the University of Polonia (Poland) is in effect, which, among other things, provides for the implementation of dual educational programs, exchange and internship of applicants and scientific and pedagogical workers, cooperation within the framework of EU programs, as well as joint research and educational initiatives .</p>
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## 2. LIST OF EDUCATIONAL AND PROFESSIONAL PROGRAM COMPONENTS AND THEIR LOGICAL SEQUENCE

### 2.1 List of components of EPP specialty 222 "Medicine"

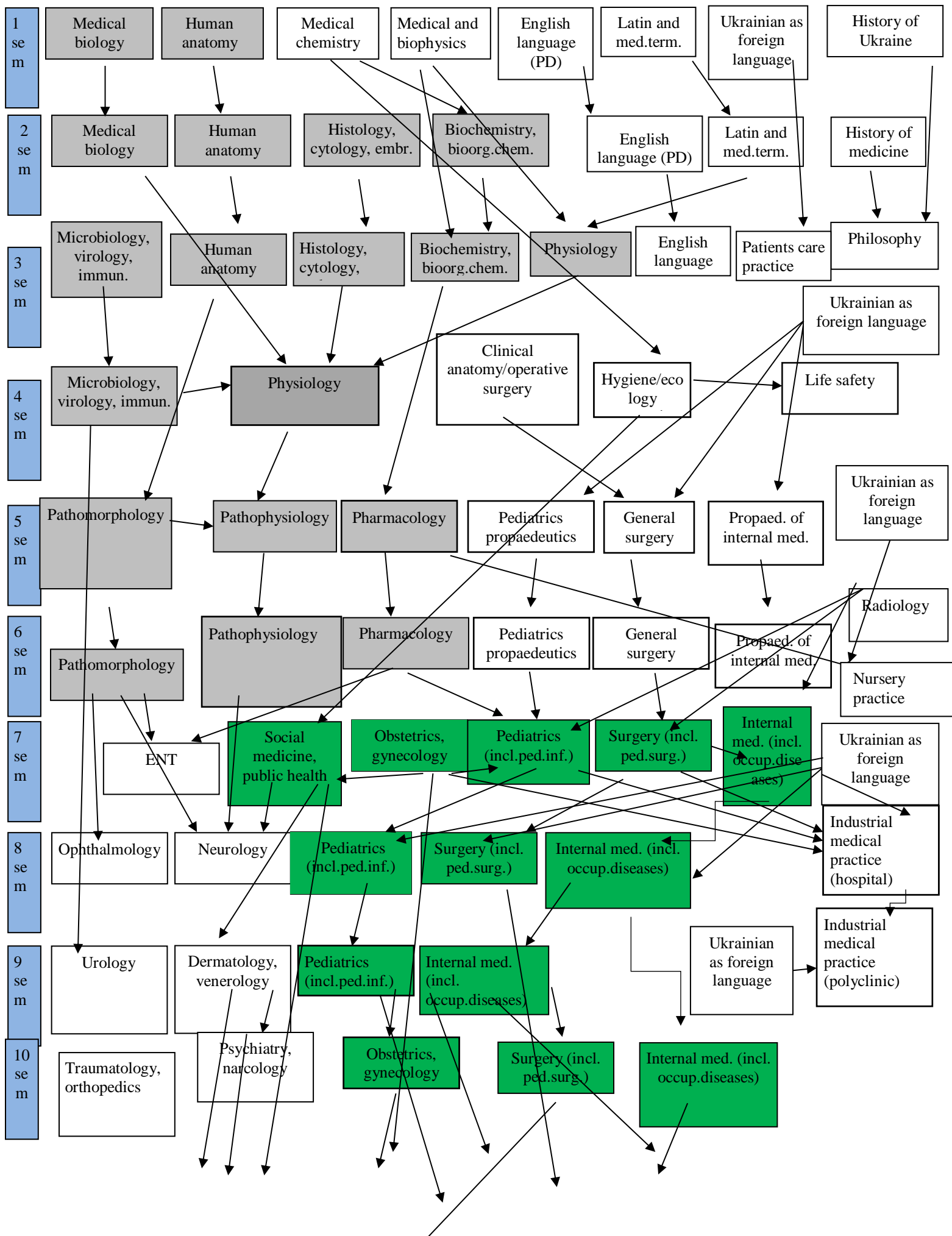
Code	Components of the educational program (study subjects, course projects (works), practices, qualification work)	Number of credits	Final control form
<b>EPP Compulsory Components</b>			
<b>General training</b>			
CC 1	Ukrainian language (as foreign)	13	exam/test
CC 2	Philosophy	2	exam
CC 3	English language (by professional direction)	9	exam/test
CC 4	History of Ukraine	4	exam
CC 5	History of medicine	4	test
CC 6	Life safety and labor protection	3	test

CC 7	Latin language and medical terminology	6	exam/test
CC 8	Medical biology	6	exam
CC 9	Medical and biological physics	5	exam
CC 10	Medicinal chemistry	5	exam
<b>Total</b>		<b>57</b>	
<b>Cycle of professional and practical training</b>			
CC 11	Biological and bioorganic chemistry	8	exam/test
CC 12	Human anatomy	10	exam/test
CC 13	Histology, cytology and embryology	8	exam/test
CC 14	Physiology	8	exam/test
CC 15	Microbiology, virology and immunology	5	exam/test
CC 16	Hygiene and ecology	4	exam
CC 17	Pathomorphology	5	exam
CC 18	Pathophysiology	5	exam
CC 19	Pharmacology	6	exam
CC 20	Propaedeutics of internal medicine	5	exam/test
CC 21	Pediatric propaedeutics	5	exam/test
CC 22	General surgery	5	exam/test
CC 23	Radiology	3	test
CC 24	Clinical anatomy and operative surgery	3	exam
CC 25	Urology	3	exam
CC 26	Dermatology, venereology	3	exam
CC 27	Anesthesiology and intensive care	3	test
CC 28	Traumatology and orthopedics	3	exam
CC 29	Internal medicine (including occupational diseases)	20	exam/test
CC 30	Pediatrics (including children's infectious diseases)	16	exam/test
CC 31	Surgery (including pediatric surgery)	16	exam/test
CC 32	Obstetrics and gynecology	12	exam/test
CC 33	Social medicine, public health	3	exam/test
CC 34	Otorhinolaryngology	3	exam
CC 35	Ophthalmology	3	exam
CC 36	Neurology	3	exam

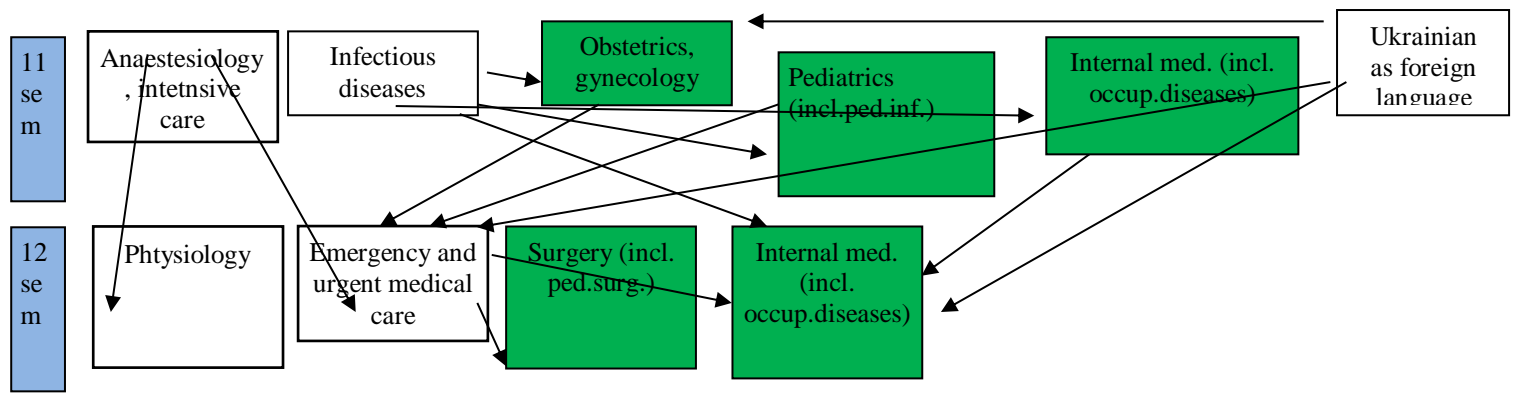
CC 37	Psychiatry, narcology	3	test
CC 38	Infectious diseases	3	exam
CC 39	Phtysiology	3	test
CC 40	Emergency and urgent medical care	3	test
<b>Total</b>		180	exam
<b>Practical training (preparation)</b>			
PP 41	Patient's care practice	6	test
PP 42	Nursing practice	8	test
PP 43	Industrial medical practice (hospital)	8	test
PP 44	Industrial medical practice (polyclinic)	8	test
<b>Total - 267</b>			
<b>Certification</b>			
	Independent evaluation exam – stage 1 (KROK-1 and ELPT)	1	
	Independent evaluation exam - stage 2 (KROK-2 and OSCE)	2	
<b>EPP Optional Subject – 90 credits (according to Appendix)</b>			
<b>EPP Total, including compulsory 75 (%) and optional 25 % subjects</b>		<b>360</b>	

## 2.2. Structured-logical scheme of EPP

Brief description of logical sequence of EPP components study







- EPP components related to «Krok 1.Medicine»
- EPP components related to «Krok 2.Medicine»

### 3. FORM OF CERTIFICATION OF UNDERGRADUATES

<b>Forms of attestation of undergraduates</b>	<p>Attestation of the educational and professional training program in the specialty "Medicine" is carried out in the form of a single state qualification exam.</p> <p>The unified state qualification exam (USQE) is carried out in accordance with the Procedure for the implementation of the unified state qualification exam for master's degree holders in the field of knowledge "Health care" and consists of the following components:</p> <ul style="list-style-type: none"><li>• USQE-stage 1 (takes place after the 6th semester):<ul style="list-style-type: none"><li>- integrated test exam "KROK-1", which evaluates the compliance of the quality of training of specialists with the standards of higher education and is conducted by the State organization "Center for testing the professional competence of specialists with higher education in the fields of training "Medicine" and "Pharmacy" under the Ministry of Health of Ukraine";</li><li>- the professional English language exam, which assesses the professionally oriented English language competence of higher education seekers and is conducted by the State organization "Center for Testing the Professional Competence of Specialists with Higher Education in the Fields of Training "Medicine" and "Pharmacy" under the Ministry of Health of Ukraine";</li></ul></li><li>• USQE-stage 2 (takes place after the 12th semester):<ul style="list-style-type: none"><li>- integrated test exam "KROK-2", which assesses the compliance of the quality of training of specialists with the standards of higher education and is conducted by the State organization "Center for testing the professional competence of specialists with higher education in the fields of training "Medicine" and "Pharmacy" under the Ministry of Health of Ukraine"</li><li>- an objective structured practical (clinical) exam (OSCE) that assesses the readiness of a graduate to carry out professional activities in accordance with the requirements of the higher education standard by demonstrating the practical (clinical) components of professional competence on a real object or on a model and is conducted by the examination board of a higher education institution.</li></ul></li></ul>
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*The attestation ends with the issuance of a diploma of the established model awarding the graduate with the educational qualification "Master of Medicine" and the professional qualification "Doctor".*

*Attestation is carried out openly and publicly.*

**LIST OF OPTIONAL SUBJECTS (SUBJECTS OF CHOICE)**  
to the curriculum for training students of higher education (Master's degree)  
in specialty 222 "Medicine"

No	Subject	Credits	Control form
<b>1<sup>st</sup> year 2<sup>nd</sup> term</b>			
Disciplines of the free choice of the student of higher education (chosen 1 discipline)			
SC1	Medical local history	4	Test
	History of Ukrainian Culture	4	Test
	Sociology	4	Test
	Professional speech of doctors	4	Test
<b>2<sup>nd</sup> year 3<sup>rd</sup> term</b>			
Disciplines of the free choice of the student of higher education (chosen 1 discipline)			
SC2	Deontology in medicine	5	Test
	Labor Law	5	Test
	Foreign language (second) – German	5	Test
<b>2<sup>nd</sup> year 4<sup>th</sup> term</b>			
Disciplines of the free choice of the student of higher education (chosen 2 disciplines)			
SC3	Formation of soft skills of the future doctor	5	Test
SC4	Economics in the health care system	5	Test
	Medical informatics	5	Test
	Bioethics and biosafety	5	Test
<b>3<sup>rd</sup> year 5<sup>th</sup> term</b>			
Disciplines of the free choice of the student of higher education (chosen 2 disciplines)			
SC5	Improvement of knowledge in anatomy, biology, histology for preparation for EDKI	5	Test
SC6	Basics of modern molecular biology	5	Test
	Valeology	5	Test
	Basics of psychology	5	Test
<b>3<sup>rd</sup> year 6<sup>th</sup> term</b>			
Disciplines of the free choice of the student of higher education (chosen 1 discipline)			
SC7	Nutritionology	5	Test
	Clinical biochemistry	5	Test
	Basics of cosmetology	5	Test
	Improvement of knowledge in physiology, microbiology, immunology for preparation for EDKI	5	Test
<b>4<sup>th</sup> year 7<sup>th</sup> term</b>			

Disciplines of the free choice of the student of higher education (chosen 2 disciplines)			
SC8	Clinical immunology and allergology	4	Test
SC9	Basics of sexology and sexopathology	4	Test
	Side effects of drugs	4	Test
	Actual problems of HIV infection	4	Test
	Clinical laboratory diagnostics	4	Test
<b>4thyear 8thterm</b>			
Disciplines of the free choice of the student of higher education (chosen 2 disciplines)			
SC10	Actual problems of physiotherapy, resort medicine and medical rehabilitation	5	Test
SC11	Palliative and hospice medicine	5	Test
	Basics of dentistry	5	Test
	Clinical electrocardiography	5	Test
	Clinical pathophysiology	5	Test
	Military field surgery	5	Test
<b>5thyear 9th term</b>			
Disciplines of the free choice of the student of higher education (chosen 2 disciplines)			
SC12	Sectional course	5	Test
SC13	Clinical pharmacology	5	Test
	Neurosurgery	5	Test
	Clinical parasitology and tropical medicine	5	Test
	Oncology and radiation medicine	5	Test
	Physical rehabilitation, sports medicine	5	Test
<b>5thyear 10th term</b>			
Disciplines of the free choice of the student of higher education (chosen 2 disciplines)			
SC14	Forensic Medicine. Medical law of Ukraine	4	Test
SC15	Medical genetics	4	Test
	Epidemiology	4	Test
	Simulation medicine	4	Test
	Plastic and reconstructive surgery	4	Test
	Management and marketing in healthcare	4	Test
<b>6thyear 11th term</b>			
Disciplines of the free choice of the student of higher education (chosen 2 disciplines)			
SC16	Family medicine	5	Test
SC17	Endoscopic techniques in medicine	5	Test
	Fundamentals of transplantology	5	Test
	Invasive vascular surgery	5	Test
	Improvement of knowledge and practical	5	Test

	skills in clinical disciplines (internal medicine, surgery) for preparation for final exam		
<b>6thyear 12thterm</b>			
Disciplines of the free choice of the student of higher education (chosen 2 disciplines)			
SC18	Fundamentals of cardiac surgery	5	Test
SC19	Actual issues of hematology and transfusion	5	Test
	Basics of gerontology and geriatrics	5	Test
	COVID infection: modern ideas	5	Test
	Improvement of knowledge and practical skills in clinical disciplines (obstetrics, gynecology, pediatrics) for preparation for final exam	5	Test





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## List 1 (syndromes and symptoms)

### 1. amenorrhea

2. anemic syndrome
3. anuria and oliguria
4. arterial hypertension
5. arterial hypotension
6. chest pain
7. abdominal pain
8. pain in the limbs and back
9. pain in the perineum
10. sore throat
11. vomiting
12. broncho-obstructive syndrome
13. bulbar syndrome
14. effusion in the pleural cavity
15. hallucinatory-paranoid syndrome
16. fever
17. hemorrhagic syndrome
18. hepatomegaly and hepatolienal syndrome
19. hyperemia
20. headache
21. dysuria
22. dysmenorrhea
23. dyspepsia
24. dysphagia
25. diarrhea
26. exanthema, enanthema
27. jaundice
28. shortness of breath
29. asphyxia
30. fasten
31. dizziness
32. cardiomegaly
33. cough
34. intestinal obstruction
35. hemoptysis
36. lymphadenopathy
37. meningeal syndrome
38. uterine bleeding
39. ground
40. edematous syndrome
41. paresis, paralysis
42. polyuria
43. portal hypertension
44. speech disorder (aphasia)
45. heart rhythm and conduction disturbances
46. disorders of consciousness
47. skin itching
48. urinary syndrome
49. dementia syndrome
50. dehydration syndrome
51. indigestion syndrome
52. stridor

53. joint syndrome
54. convulsions
55. weight loss
56. cyanosis
57. partial or complete loss of vision
58. partial or complete hearing loss
59. gastrointestinal bleeding
60. fluctuation

**List 2 (diseases)**

**I) Diseases of the blood and hematopoietic organs, disorders involving the immune mechanism**

1. anemia
2. hemolytic disease of newborns
3. hemophilia
4. leukemia
5. lymphomas
6. Congenital (Bruton's disease, Wiskott-Aldridge syndrome) and acquired immunodeficiency states
7. sepsis of newborns
8. surgical sepsis
9. idiopathic thrombocytopenic purpura
10. chronic radiation damageСписСС 2 (захворювання)

**II) Mental and behavioral disorders:**

11. bipolar affective disorder
12. acute psychosis, etc. alcoholic delirium
13. epilepsy
14. neurotic disorders
15. personality disorders
16. schizophrenia

**III) Diseases of the nervous system**

17. intracranial injury
18. meningitis, encephalitis
19. migraine and other types of headache
20. perinatal encephalopathy
21. Violation of the autonomic nervous system
22. violation of cerebral circulation
23. Vertebrogenic diseases of the nervous system, neuropathy and polyneuropathy
24. multiple sclerosis
25. chronic occupational injuries (vibration disease, occupational dyskinesias)

Eye diseases

26. blepharitis
27. acute attack of glaucoma
28. conjunctivitis
29. foreign body of the eye
30. eye injuries
31. retinopathy

Diseases of the throat, ears, nose

32. laryngitis
33. swell up
34. paratonsillar abscess
35. sinusitis
36. tonsillitis

#### **IV) Diseases of the cardiovascular system:**

37. aortic aneurysms
38. atherosclerosis
39. varicose veins of the lower extremities
40. congenital heart defects
41. secondary arterial hypertension
42. acute occlusion of main and peripheral arteries;
43. endocarditis
44. essential and secondary arterial hypertension
45. ischemic heart disease
46. Cardites
47. cardiomyopathy
48. pulmonary heart
49. acquired heart defects
50. obliterating endarteritis
51. pericarditis
52. heart rhythm and conduction disturbances
53. heart failure
54. injuries of the heart and blood vessels
55. pulmonary embolism
56. phlebitis, thrombophlebitis

#### **V) Diseases of respiratory organs and mediastinum:**

57. asphyxia
58. bronchial asthma
59. bronchitis
60. bronchiectatic disease
61. bronchopulmonary dysplasia
62. congenital malformations of respiratory organs
63. respiratory failure
64. infectious and destructive lung diseases
65. pulmonary insufficiency
66. mediastinitis
67. cystic fibrosis
68. neoplasms of the lungs and mediastinum
69. pleurisy
70. pneumoconiosis
71. pneumonia
72. pneumothorax
73. respiratory distress syndrome and pneumonia of newborns
74. foreign body in the respiratory tract
75. chest injuries (superficial, open)
76. chronic obstructive pulmonary disease

#### **VI) Diseases of digestive organs:**

77. prolapse of the rectum
78. ulcer disease
79. congenital malformations of digestive organs
80. gastroesophageal reflux disease, esophagitis
81. gastritis, duodenitis
82. acute and chronic hepatitis
83. acute intestinal obstruction

84. acute and chronic appendicitis
85. acute and chronic pancreatitis
86. benign diseases of the esophagus
87. enteritis, colitis
88. inflammatory diseases of the rectum and perianal region
89. pinched and unpinched abdominal hernias
90. neoplasms of the esophagus, stomach, colon, liver and pancreas
91. peptic ulcers of the stomach and duodenum
92. peritonitis
93. perforation of a hollow organ
94. liver failure
95. malabsorption syndrome
96. stenosis of the pylorus hole
97. abdominal injuries (superficial, open)
98. functional gastrointestinal disorders
99. diseases of the operated stomach
100. cholecystitis, cholangitis, gallstone disease, choledocholithiasis
101. liver cirrhosis
102. gastric-intestinal bleeding

**VII) Diseases of the genitourinary system:**

103. amyloidosis of the kidneys
104. balanitis, balanoposthitis
105. congenital malformations of the urinary system
106. glomerulonephritis
107. dysmetabolic nephropathy
108. nephrotic syndrome
109. neoplasms of the kidney, urinary tract and prostate gland
110. pyelonephritis
111. prostatitis
112. urolithiasis
113. tubulointerstitial nephritis
114. urethritis
115. chronic kidney disease
116. cystitis

**VIII) Diseases of the skin and subcutaneous tissue:**

117. allergic dermatoses (dermatitis, toxidermia, eczema)
118. abscess, phlegmon
119. bacterial diseases of the skin and subcutaneous tissue, pyoderma
120. purulent-inflammatory diseases of fingers and hands
121. purulent-inflammatory diseases in children and newborns
122. acute lymphangitis
123. carbuncle, furuncle
124. mycoses
125. burns and frostbite
126. parasitic skin diseases (scabies, lice)
127. psoriasis
128. bullous dermatoses
129. specific surgical infection (anaerobic clostridial and non-clostridial)

**IX) Diseases of the musculoskeletal system and connective tissue:**

130. ankylosing spondylarthritis

131. congenital and acquired malformations of the musculoskeletal system
132. acute rheumatic fever
133. dermatomyositis tapolymyositis
134. Neoplasm of the musculoskeletal system
135. osteoarthritis
136. osteomyelitis
137. gout
138. polytrauma
139. reactive arthritis
140. rheumatoid arthritis
141. systemic scleroderma
142. systemic lupus erythematosus
143. systemic vasculitis (polyarteritis nodosa, hemorrhagic vasculitis, hypersensitivity vasculitis)
144. typical fractures of the bones of the shoulder, forearm, hand, hip, leg, foot
145. pelvis injury
146. spine injury
147. damage to large joints (hip, knee, shin - foot, elbow)
148. chronic rheumatic disease
149. juvenile rheumatoid arthritis

**X) Diseases of the endocrine system, nutritional disorders and metabolic disorders:**

150. acromegaly
151. hyperplasia of the thymus
152. hypothyroidism
153. hypotrophy, protein-energy deficiency
154. pituitary dwarfism
155. diffuse toxic goiter
156. iodine deficiency diseases of the thyroid gland
157. diabetes insipidus
158. neoplasm of the thyroid gland
159. obesity
160. congenital dysfunction of the adrenal cortex
161. rickets, spasmophilia,
162. hereditary metabolic diseases (phenylketonuria)
163. hereditary chromosomal disorders (Down's disease, Shereshevsky-Turner syndrome)
164. thyroiditis
165. thyrotoxicosis
166. Itsenko-Cushing's disease and syndrome
167. chronic adrenal insufficiency
168. diabetes mellitus

**XI) Infectious and parasitic diseases:**

169. bacterial food poisoning
170. rabies
171. botulism
172. viral hepatitis
173. chicken pox
174. congenital infections of the newborn
175. helminth infections
176. herpesvirus diseases
177. influenza and other acute respiratory viral infections
178. diphtheria
179. infectious mononucleosis

180. candidiasis
181. whooping cough
182. intestinal bacterial infections
183. intestinal viral infections
184. measles
185. tick-borne viral encephalitis
186. rubella
187. leptospirosis
188. malaria
189. meningococcal infection
190. especially dangerous viral infections
191. mumps infection
192. poliomyelitis
193. tetanus
194. protozoan infections
195. rickettsiosis
196. anthrax
197. rabies
198. scarlet fever
199. tuberculosis of various localization
200. Lyme disease
201. disease caused by the human immunodeficiency virus (HIV)
202. chlamydial infections
203. cholera
204. Plague - infectious diseases transmitted mainly sexually:
205. gonococcal infection
206. syphilis

**XII) Diseases of the female reproductive system, pathology of pregnancy:**

207. multiple pregnancy
208. vomiting of pregnant women
209. pregnancy with extragenital pathology
210. fetal distress during pregnancy
211. fetal growth retardation
212. immune conflict during pregnancy
213. cyst drift
214. placenta previa
215. premature detachment of the placenta
216. premature birth and delayed pregnancy
217. ectopic pregnancy
218. preeclampsia and eclampsia
219. spontaneous abortion pathology of childbirth and the postpartum period:
220. anomalies of labor activity
221. abnormalities of the pelvis, including clinically narrow pelvis
222. fetal distress during childbirth
223. childbirth and postpartum bleeding
224. incorrect positions and presentation of the fetus
225. postpartum septic diseases
226. injuries of the uterus and birth canal, gynecological diseases:
227. abnormal uterine bleeding
228. ovarian apoplexy
229. infertility (fertility)
230. congenital malformations of female genital organs

231. benign dysplasia of the mammary glands
232. benign and precancerous neoplasms of female genital organs
233. endometriosis
234. inflammatory diseases of female genital organs
235. malignant neoplasms of female genital organs
236. mastitis
237. neuroendocrine syndromes
238. neoplasm of the mammary gland

**List 3 (emergency conditions)**

1. asphyxia (including neonatal)
2. hypertensive crisis
3. acute respiratory failure
4. acute urinary retention
5. acute adrenal insufficiency
6. acute kidney damage
7. acute liver failure
8. acute heart failure
9. acute poisoning, including combat poisonous substances
10. acute psychosis
11. acute coronary syndrome
12. acute radiation and chemical damage, including in field conditions and emergency situations
13. acute cerebral insufficiency
14. electric injury
15. status epilepticus
16. acute bleeding
17. syndrome of acute blood loss, including in field conditions and emergency situations
18. cardiac arrest
19. collapse
20. impaired consciousness and comatose states
21. renal colic
22. biliary colic
23. acute anaphylactic reactions
24. acute heart rhythm disturbances,
25. cold injury, including in field conditions
26. thermal injury, including in field conditions
27. convulsive syndrome
28. drowning
29. strangulation asphyxia
30. normal childbirth
31. shocks
32. bites of snakes, insects, animals
33. penetrating wounds, including during hostilities
34. burns, including in field conditions
35. foreign bodies of the respiratory tract, gastrointestinal tract, ENT organs and the eye

**List 4 (laboratory and instrumental studies)**

1. pleural fluid analysis
2. analysis of ascitic fluid
3. analysis of synovial fluid
4. urine analysis according to Zimnytskyi
5. urine analysis according to Nechiporenko
6. alpha-amylase activity in blood and urine, fecal elastase1
7. blood proteins and their fractions, C - reactive protein



8. blood glucose, glycosylated hemoglobin,
9. oral glucose tolerance test
10. blood lipids and lipoproteins and their fractions
11. blood hormones
12. serum ferritin, iron and copper
13. creatinine, blood and urine urea, glomerular filtration rate
14. blood electrolytes
15. blood aminotransferases
16. total blood bilirubin and its fractions
17. coagulogram
18. blood uric acid
19. blood alkaline phosphatase
20. histomorphological study of lymph node biopsy
21. histomorphological study of a biopsy of parenchymal organs
22. histomorphological study of biopsy of mucous membranes
23. histomorphological study of muscle and skin biopsy
24. study of the indoor environment (indicators of microclimate, natural and artificial lighting, bacteriological and chemical air pollution).
25. study of the function of external breathing
26. standard ECG (in 12 leads)
27. endoscopic examination of bronchi
28. endoscopic examination of the digestive tract
29. echocardiography and dopplerography
30. general analysis of feces
31. general blood test
32. general analysis of urine
33. general analysis of cerebrospinal fluid
34. general analysis of sternal puncture
35. general analysis of sputum
36. general immunological blood profile
37. serological reactions in infectious diseases
38. express tests for viral diseases
39. amplification methods for infectious diseases (PCR, LLR)
40. serological reactions in autoimmune diseases
41. chemical and bacteriological studies of the human environment (atmospheric air, water bodies, soil).
42. microbiological research of biological fluids and secretions
43. measurement of radiation (sound, vibration, ionizing), individual radiometry.
44. methods of instrumental visualization of the thyroid gland
45. X-ray contrast angiography
46. methods of instrumental visualization of organs of the abdominal cavity
47. methods of instrumental visualization of chest cavity organs
48. methods of instrumental visualization of the genitourinary system
49. methods of instrumental visualization of the skull, spine, spinal cord, bones and joints
50. methods of instrumental visualization of the breast
51. tuberculin diagnostics
52. multi-moment fractional study of bile and pH-metry of the stomach and esophagus
53. chemical, organoleptic, bacteriological research of food products and drinking water
54. cytological examination of the cervix
55. measurement of ergonomic indicators of difficulty and intensity of work

### **List 3 (emergency conditions)**

1. asphyxia (including neonatal)
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5. acute adrenal insufficiency
6. acute kidney damage
7. acute liver failure
8. acute heart failure
9. acute poisoning, including combat poisonous substances
10. acute psychosis
11. acute coronary syndrome
12. acute radiation and chemical damage, including in field conditions and emergency situations
13. acute cerebral insufficiency
14. electric injury
15. status epilepticus
16. acute bleeding
17. syndrome of acute blood loss, including in field conditions and emergency situations
18. cardiac arrest
19. collapse
20. impaired consciousness and comatose states
21. renal colic
22. biliary colic
23. acute anaphylactic reactions
24. acute heart rhythm disturbances,
25. cold injury, including in field conditions
26. thermal injury, including in field conditions
27. convulsive syndrome
28. drowning
29. strangulation asphyxia
30. normal childbirth
31. shocks
32. bites of snakes, insects, animals
33. penetrating wounds, including during hostilities
34. burns, including in field conditions
35. foreign bodies of the respiratory tract, gastrointestinal tract, ENT organs and the eye

**List 4 (laboratory and instrumental studies)**

1. pleural fluid analysis
2. analysis of ascitic fluid
3. analysis of synovial fluid
4. urine analysis according to Zimnitsky
5. urine analysis according to Nechiporenko
6. alpha-amylase activity in blood and urine, fecal elastase1
7. blood proteins and their fractions, C - reactive protein
8. blood glucose, glycosylated hemoglobin,
9. oral glucose tolerance test
10. blood lipids and lipoproteins and their fractions
11. blood hormones
12. serum ferritin, iron and copper
13. creatinine, blood and urine urea, glomerular filtration rate
14. blood electrolytes
15. blood aminotransferases
16. total blood bilirubin and its fractions
17. coagulogram
18. blood uric acid
19. blood alkaline phosphatase
20. histomorphological study of lymph node biopsy

21. histomorphological study of a biopsy of parenchymal organs
22. histomorphological study of biopsy of mucous membranes
23. histomorphological study of muscle and skin biopsy
24. study of the indoor environment (indicators of microclimate, natural and artificial lighting, bacteriological and chemical air pollution).
25. study of the function of external breathing
26. standard ECG (in 12 leads)
27. endoscopic examination of bronchi
28. endoscopic examination of the digestive tract
29. echocardiography and dopplerography
30. general analysis of feces
31. general blood test
32. general analysis of urine
33. general analysis of cerebrospinal fluid
34. general analysis of sternal puncture
35. general analysis of sputum
36. general immunological blood profile
37. serological reactions in infectious diseases
38. express tests for viral diseases
39. amplification methods for infectious diseases (PCR, LLR)
40. serological reactions in autoimmune diseases
41. chemical and bacteriological studies of the human environment (atmospheric air, water bodies, soil).
42. microbiological research of biological fluids and secretions
43. measurement of radiation (sound, vibration, ionizing), individual radiometry.
44. methods of instrumental visualization of the thyroid gland
45. X-ray contrast angiography
46. methods of instrumental visualization of organs of the abdominal cavity
47. methods of instrumental visualization of chest cavity organs
48. methods of instrumental visualization of the genitourinary system
49. methods of instrumental visualization of the skull, spine, spinal cord, bones and joints
50. methods of instrumental visualization of the breast
51. tuberculin diagnostics
52. multi-moment fractional study of bile and pH-metry of the stomach and esophagus
53. chemical, organoleptic, bacteriological research of food products and drinking water
54. cytological examination of the cervix
55. measurement of ergonomic indicators of difficulty and intensity of work