

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
STATE UNIVERSITY  
“UZHHOROD NATIONAL UNIVERSITY”**

**APPROVED**  
by the Academic Council of  
«Uzhhorod National University»  
№ 3 of 31.03, 2022

**EDUCATIONAL and PROFESSIONAL PROGRAM  
“General Medicine”  
of the second (Master’s) level of higher education  
Specialty 222 “Medicine”  
Subject area 22 “Health”  
Qualification: Master of Medicine, doctor**

**BROUGHT INTO FORCE**  
Order of the Rector of  
«Uzhhorod National University»  
№ 116/01-04 of 01.04 2022

**Uzhhorod - 2022**

**SHEET OF APPROVAL OF THE  
EDUCATIONAL and PROFESSIONAL PROGRAM  
“General Medicine”**

1. Rector 01.04.2022		Volodymyr Smolanka
2. Guarantor of the educational program 24.03.2022		Serhii Boiko
3. Dean of the Medical Faculty 24.03.2022		Oleksandr Boldizhar
4. Dean of the Medical Faculty 2 24.03.2022		Vasyl Kaliy
5. Head of the Education Department 31.03.2022		Anatolii Shtymak



## **PREFACE**

The educational and professional program “General Medicine” was developed according to the requirements of the standard of higher education in the specialty 222 Medicine approved by the Order of the Ministry of Education and Science of Ukraine No. 1197 of 08 November 2021.

### **DEVELOPERS:**

Serhii O. Boiko – Professor of the Department of Surgical Diseases of the Medical Faculty, Doctor of Medical Sciences, Associate Professor, guarantor of the educational program;

Oleksandr O. Boldizhar – Dean of the Medical Faculty, Doctor of Medical Sciences, Professor, head of the working group;

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Oleh T. Deviniak – Head of the Department of Pharmaceutical Disciplines of the Medical Faculty, Deputy Dean of the Medical Faculty, Candidate of Medical Sciences, Associate Professor.

## 1- Profile of the Educational Program “General Medicine”, Specialty 222 “Medicine”

1 – General Information	
Full name of the higher educational institution and the structural unit	State University “Uzhhorod National University”, Medical Faculty
Educational level and qualification in the source language	Educational level – Master Educational qualification – Master of Medicine Professional qualification – Doctor
Official name of the educational program	General Medicine
Type of the diploma and the scope of the educational program	Master’s Degree Diploma, single, 360 ECTS credits, training period 5 years and 10 months
Accreditation availability	Certificate of the specialty accreditation $\text{HД №0791826}$
Cycle / level	National Qualifications Framework of Ukraine – 7 level, FQ-EHEA – second cycle, EQF-LLL - 7 level
Prerequisites	Persons with a complete general secondary education can apply for the Master's degree. Admission based on a Bachelor's degree, a Junior Bachelor's degree, a Professional Junior Bachelor's degree, or the educational and qualification level of a Junior Specialist in specialty 223 Nursing is carried out based on the results of external independent evaluation and entrance exams at a higher educational institution in subjects (disciplines) for which external independent evaluation is not conducted. Admission requirements are determined by the Rules of Admission to the State University “Uzhhorod National University”
Language(s) of instruction	Ukrainian, English
Period of validity of the educational program	The period of validity of the educational program – permanently until replaced by a new one.
Internet address of the educational program description permanent placement	<a href="https://www.uzhnu.edu.ua/uk/cat/faculty-medical/therapy">https://www.uzhnu.edu.ua/uk/cat/faculty-medical/therapy</a>
2 - The Aim of the Educational Program	
The educational program aims at providing academic training in basic and clinical biomedical sciences as well as preparing graduates for the professional activity of a doctor in the relevant primary position by acquiring general and special competencies, the scope of which is at least described by certain lists of syndromes and symptoms of diseases, emergencies, physiological conditions and diseases that require special tactics of patient management; laboratory and instrumental research, medical manipulations; issues of labor, forensic and military expertise.	
3 - Characteristics of the Educational Program	
Subject area (field of knowledge, specialty, specialization)	The object of study and/or activity of medicine: prevention, diagnosis and treatment of human diseases, the impact of health problems on patients, their families and the population, health maintenance. Learning goals: acquiring the ability to solve complex tasks and problems, including those of a research and innovation nature, in the field of medicine. Ability to continue learning with a high degree of autonomy. Theoretical content of the subject area: concepts, principles and theories of prevention, diagnosis and treatment of human diseases at the individual, family and population levels. Methods, methodologies and technologies:

	<p>anamnestic, clinical, laboratory, instrumental methods of carrying out the diagnostic process, determining the leading symptoms and syndromes, determining the preliminary and clinical diagnosis; technologies of diagnosis, treatment and prevention, management and organization of work in the field of health care.</p> <p>Tools and equipment: modern diagnostic, therapeutic and other devices, objects and devices used in professional activities.</p>
Orientation of the educational program	An application program with a professional focus on the theory and practice of medicine
The main focus of the educational program and specialization	<p>General higher education in the field of knowledge “Healthcare”, specialty “Medicine”.</p> <p>Key words: Master’s degree, medicine, healthcare, higher education</p>
Features of the program	The program is implemented in small groups with a combination of practical and theoretical training. The program is also taught in English. The program has an increased emphasis on learning foreign languages in a professional context and provides profiling during the last year of study.
<b>4 - Meeting the employment and further training requirements</b>	
Meeting the employment requirements	<p>Paragraph 2 Professionals</p> <p>Subparagraph 22 Life and Medical Sciences professionals</p> <p>Class 221 Life Sciences and Medical Sciences professionals</p> <p>Class 222 Medical professionals (except nurses)</p> <p>Subclass 2221 Professionals in the field of medicine (except dentistry)</p> <p>Group 2221.2 Doctors</p> <p>Subclass 2225 Professionals in the field of medical and preventive care</p> <p>2225.2 Doctors, specialists in the field of medical and preventive care</p> <p>2229.2 Medical professionals (except nursing and midwifery)</p> <p>Professional job titles - according to the National Classifier of Ukraine: Classifier of Professions ДК 003:2010.</p> <p>The specialist is prepared to work according to ДК 009-2010: Section Q. Healthcare and providing social assistance services</p> <p>Part 86.1. Activities of healthcare facilities</p> <p>Group 86.10 Activities of healthcare facilities</p> <p>Class 86.21 General medical practice</p> <p>Class 86.90 Other health care activities</p> <p>Employment of graduates</p> <p>After graduating from the educational-professional program of the Master’s degree in “Medicine”, the specialist is able to perform professional work:</p> <p>intern (code КП - 3229);</p> <p>trainee doctor (code КП - 3221);</p> <p>resident doctor (code КП - XXX).</p>
Further training	Acquisition of additional qualifications and specialties in medicine within the system of adult education, in particular in internship. Obtaining an education at the third (educational and scientific) level of higher education.
<b>5 - Teaching and Assessment</b>	
Teaching and studying	The main approach to training a medical professional is to conduct training sessions in the forms of lectures, practical classes, seminars

	and laboratory classes, consultations, practical training and internships, self-study and individual work as well as academic performance control.
Assessment	<p>Assessment of knowledge of higher education seekers is carried out according to:</p> <ul style="list-style-type: none"> <li>• Regulations on the organization of the educational process at the State University “Uzhhorod National University” <a href="https://www.uzhnu.edu.ua/uk/infocentre/get/31357">https://www.uzhnu.edu.ua/uk/infocentre/get/31357</a></li> <li>• Regulations on the procedure and methods of conducting semester (course) exams and tests at the State University “Uzhhorod National University” <a href="https://www.uzhnu.edu.ua/uk/infocentre/get/5952">https://www.uzhnu.edu.ua/uk/infocentre/get/5952</a></li> <li>• Regulations on attestation of higher education applicants and examination board at the State University “Uzhhorod National University” <a href="https://www.uzhnu.edu.ua/uk/infocentre/get/11070">https://www.uzhnu.edu.ua/uk/infocentre/get/11070</a></li> <li>• in compliance with the norms of academic integrity in accordance with the Regulations on Academic Integrity at Uzhhorod National University <a href="https://www.uzhnu.edu.ua/uk/infocentre/get/12223">https://www.uzhnu.edu.ua/uk/infocentre/get/12223</a></li> </ul> <p>Transferring of credits is based on the Regulations on recognition (re-crediting) of ECTS credits for participants of academic mobility programs at the State University “Uzhhorod National University” <a href="https://www.uzhnu.edu.ua/uk/infocentre/get/20131">https://www.uzhnu.edu.ua/uk/infocentre/get/20131</a></p> <p>Regulations on the evaluation of educational achievements of students of the State University “Uzhhorod National University” according to the credit-module system. <a href="https://www.uzhnu.edu.ua/uk/infocentre/get/5952">https://www.uzhnu.edu.ua/uk/infocentre/get/5952</a></p> <p>The current assessment of the level of mastering a topic is carried out at each practical class. The rating score is formed on the basis of current assessments and the results of module tests. The final grade for the discipline can be equal to the rating score or set based on the results of the credit or exam. If a student has 100 or more hours of unfinished practical and laboratory classes, it is considered as a failure to comply with the individual curriculum, which is the grounds for expulsion.</p> <p>Attestation of graduates consists of the Unified State Qualification Exam, which is conducted in two stages, as well as a practice-oriented exam. At the end of the third year of study, students take the first stage of the Unified State Qualification Exam, which consists of the state integrated test exam STEP-1 (evaluates the level of mastery of basic medical disciplines) and English for professional purposes.</p> <p>At the end of the sixth year of study, graduates take the second stage of the Unified State Qualification Exam – the state standardized test exam STEP-2 and an objective structured practical (clinical) exam.</p>
6 – Program Competencies	
Integrated competency	The ability to solve complex problems, including those of a research and innovation nature in the field of medicine. Ability to continue learning with a high degree of autonomy.
General competencies (GC)	<ol style="list-style-type: none"> <li>1. The ability to think abstractly, analyze and synthesize.</li> <li>2. The ability to learn and master modern knowledge.</li> </ol>

	<ol style="list-style-type: none"> <li>3. The ability to apply knowledge in practical situations.</li> <li>4. Knowledge and understanding of the subject area, and understanding of professional activity.</li> <li>5. The ability to adapt to and act in a new situation.</li> <li>6. The ability to make reasoned decisions.</li> <li>7. The ability to work in a team.</li> <li>8. Interpersonal skills.</li> <li>9. The ability to communicate in the foreign language.</li> <li>10. Information and communication technology skills.</li> <li>11. The ability to search, process and analyze information from various sources.</li> <li>12. Determination and persistence to the given tasks and responsibilities.</li> <li>13. The awareness of equal opportunities and gender issues.</li> <li>14. The ability to exercise 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>15. The ability to preserve and multiply moral, cultural, scientific values and achievements of the 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, as well as in the development of society, equipment and technologies; the ability to use various types and forms of motor activity for active recreation and a healthy lifestyle.</li> </ol>
Professional competencies of the specialty (PC)	<ol style="list-style-type: none"> <li>1. The ability to collect medical information about the patient and analyze clinical data.</li> <li>2. The ability to determine necessary panel of laboratory and instrumental research and to evaluate their results.</li> <li>3. The ability to establish a preliminary and a clinical diagnosis of the disease.</li> <li>4. The ability to determine the required mode of work and rest in the treatment of diseases.</li> <li>5. The ability to determine therapeutic nutrition in the treatment of diseases.</li> <li>6. The ability to determine the principles and nature of disease treatment and prevention.</li> <li>7. The ability to diagnose emergencies.</li> <li>8. The ability to determine the tactics of providing emergency care.</li> <li>9. The ability to carry out medical and evacuation procedures.</li> <li>10. The ability to perform medical manipulations.</li> <li>11. The ability to solve medical problems in new or unfamiliar environments having incomplete or limited information, taking into account aspects of social and ethical responsibility.</li> <li>12. The ability to determine the tactics of physiological pregnancy, physiological childbirth and the postpartum period. Counselling skills regarding family planning and contraceptive method selection.</li> <li>13. The ability to carry out sanitary-hygienic and preventive measures.</li> <li>14. The ability to plan and carry out preventive and anti- epidemic measures for infectious diseases.</li> </ol>

	<p>15. The ability to conduct a functional capacity evaluation.</p> <p>16. The ability to maintain medical records, including those in electronic format.</p> <p>17. The ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.</p> <p>18. The ability to analyze the activities of a doctor, unit, health care facility, ensure the quality of medical care and increase the efficiency of the use of medical resources.</p> <p>19. The ability to organize and integrate the provision of medical care for the population and the marketing of medical services.</p> <p>20. The ability to conduct epidemiological and medical-statistical studies of public health; process social, economic and medical information.</p> <p>21. The ability to clearly and unambiguously convey one's own knowledge, conclusions and arguments on health care issues as well as related issues to specialists and non-specialists, in particular to people who are studying.</p> <p>22. The ability to manage healthcare workflows that are complex, unpredictable and require new strategic approaches.</p> <p>23. The ability to develop and implement scientific and applied projects in the health care field.</p> <p>24. To comply with ethical principles when working with patients and laboratory animals.</p> <p>25. To observe professional and academic integrity, bear responsibility for the reliability of the obtained scientific results.</p>
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7 – Program Learning Outcomes (PLO)

	<p>PLO1. To have thorough knowledge of the structure of professional activity. To be able to carry out professional activities that require knowledge updating and integration. To be responsible for professional development as well as to be able to carry out further professional training with a high level of autonomy.</p> <p>PLO2. To understand and possess a decent knowledge of fundamental and clinical biomedical sciences, at a level sufficient for solving professional tasks in the field of health care.</p> <p>PLO3. To have specialized conceptual knowledge, which includes scientific achievements in the field of health care and is the basis for conducting research, critical understanding of problems in the field of medicine as well as related interdisciplinary problems.</p> <p>PLO4. To distinguish and identify leading clinical symptoms and syndromes (according to the list 1); according to standard methods, using preliminary data of the patient's history, data of the patient's examination, knowledge about the human, human's organs and systems, establish a preliminary clinical diagnosis of the disease (according to the list 2).</p> <p>PLO5. To collect complaints, history of life and diseases, evaluate psychomotor and physical development of the patient, state of organs and systems of the body, based on the results of laboratory and instrumental studies, evaluate information regarding the diagnosis (according to the list 4), taking into account the age of the patient.</p> <p>PLO6. To establish a final clinical diagnosis by making a reasoned decision and analyzing the received subjective and objective data of a clinical and follow-up examination, to carry out differential</p>
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diagnosis, upholding relevant ethical and legal standards, under the control of the managing physician within the health care facility (according to the list 2).

PLO7. To assign and analyze additional (mandatory and optional) examination methods (laboratory, functional and/or instrumental) (according to the list 4) of patients with diseases of organs and body systems for carrying out differential diagnosis of diseases (according to the list 2).

PLO8. To determine the main clinical syndrome or preconditions for the severity of the condition of the victim/the injured (according to the list 3) by making a reasoned decision and assessing the person's condition under any circumstances (within or outside a health care facility), both in conditions of emergency and hostilities as well as in field conditions, in conditions of lack of information and limited time.

PLO9. To determine the nature and principles of treatment (conservative, operative) of patients with diseases (according to the list 2), taking into account the patient's age, within or outside a health care facility and at the stages of medical evacuation, including in field conditions, on the basis of a preliminary clinical diagnosis, upholding relevant ethical and legal standards, 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 managing physician within a medical facility.

PLO10. To determine the necessary mode of work, rest and nutrition on the basis of the final clinical diagnosis, upholding relevant ethical and legal standards by making a reasoned decision according to existing algorithms and standard schemes.

PLO11. To 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.

PLO12. To assess the general condition of a newborn child by making a reasoned decision according to existing algorithms and standard schemes, upholding relevant ethical and legal standards.

PLO13. To assess and monitor the child's development, provide recommendations on feeding and specifics of nutrition depending on the age, organize preventive vaccinations according to the calendar.

PLO14. To determine tactics and provide emergency medical care in emergency situations (according to the list 3) in limited time conditions according to existing clinical protocols and standards of treatment.

PLO15. To organize the provision of medical care and medical evacuation procedures for the population and military personnel in emergency situations and hostilities, including field conditions.

PLO16. To design rational medical routes for patients; organize interaction with colleagues at one's own workplace and other institutions and organizations; to apply tools for the promotion of medical services in the market, based on the analysis of the needs of the population, within the functioning health care facility, its unit, in a competitive environment.

PLO17. To perform medical manipulations (according to the list 5)

	<p>within a medical facility, at home or at work based on a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, upholding relevant ethical and legal standards.</p> <p>PLO18. To determine the state of functioning and limitations of a person's vital activities and the duration of work incapacity with the preparation of relevant documents, within a health care facility, based on data about the disease and its history, peculiarities of the person's professional activity, etc. To maintain medical documentation regarding the patient and the contingent of the population on the basis of the regulatory documents.</p> <p>PLO19. To plan and implement a system of anti-epidemic and preventive measures regarding the occurrence and spread of diseases among the population.</p> <p>PLO20. To analyze the epidemiological situation and carry out measures for mass and individual, general and local prevention of infectious diseases.</p> <p>PLO21. To search for necessary information in professional literature and databases, other sources, analyze, evaluate and apply this information.</p> <p>PLO22. To utilize modern digital technologies, specialized software, and statistical methods of data analysis in order to solve complex healthcare problems.</p> <p>PLO23. To assess the impact of the environment on human health for the sake of the population morbidity evaluation.</p> <p>PLO24. To organize the necessary level of individual safety (personal safety as well as the safety of individuals in care) in case of typical dangerous situations in the individual field of activity.</p> <p>PLO25. To clearly and unambiguously convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists.</p> <p>PLO26. To 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 staff taking into account the acquired skills of effective teamwork, leadership positions, appropriate quality, accessibility and justice, ensuring the provision of integrated medical care.</p> <p>PLO27. To be highly proficient in the spoken and written state and English language in order to discuss professional activities, research and projects.</p> <p>PLO28. To make effective decisions on health care issues, assess the necessary resources, take into account social, economic and ethical consequences.</p> <p>PLO29. To 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. To manage vaccine residues, organize additional vaccination campaigns, including immunoprophylaxis measures.</p>
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8 – Resource Support for the Program Implementation	
Staffing	<p>The staffing of the educational program meets the licensing requirements for activities in compliance with regulated educational programs.</p> <p>The pedagogical staff constantly undergoes internships in</p>

	<p>accordance with the Regulation on professional development and internships of pedagogical and research-pedagogical employees of Uzhhorod National University <a href="https://www.uzhnu.edu.ua/uk/infocentre/get/5950">https://www.uzhnu.edu.ua/uk/infocentre/get/5950</a>.</p> <p>Teachers of clinical disciplines actively carry out medical and diagnostic work and have practical experience. A lot of practicing medical experts and professionals are involved in the teaching process as part-time employees. The flexible elective part of the syllabus allows for elective disciplines conducted by foreign teachers.</p>
Logistics	The educational program is provided with the necessary medical high-tech simulators, phantoms and models, diagnostic tools and devices. On the basis of the concluded agreements the modern medical equipment and devices of municipal and private health care facilities of Uzhhorod are used at training.
Information and educational-methodical support	Syllabuses of educational disciplines, didactic materials, practical cases and situational tasks, tests in the disciplines of this educational program are available to students through the e-learning system of the university (e-learn) ( <a href="https://e-learn.uzhnu.edu.ua">https://e-learn.uzhnu.edu.ua</a> ). The university has access to international scientometric databases Web of Science and Scopus.
<b>9 – Academic Mobility</b>	
National credit mobility	<p>Students have the opportunity to freely obtain part of the credits in other medical institutions both as part of academic mobility programs and while studying in educational programs of specialty 222 Medicine in other higher education institutions. Re-crediting of received credits is based on the Regulation on the procedure for re-crediting of educational outcomes and determination of academic difference at the State University “Uzhhorod National University” <a href="https://www.uzhnu.edu.ua/uk/infocentre/get/28875">https://www.uzhnu.edu.ua/uk/infocentre/get/28875</a></p> <p>Regulation on recognition (re-crediting) of ECTS credits for participants of academic mobility programs at the State University “Uzhhorod National University” <a href="https://www.uzhnu.edu.ua/uk/infocentre/get/20131">https://www.uzhnu.edu.ua/uk/infocentre/get/20131</a></p>
International credit mobility	<p>Students have the opportunity to participate in competitive programs of international credit mobility ERASMUS+ and others. Re-crediting of received credits is based on the Regulation on recognition (re-crediting) of ECTS credits for participants of academic mobility programs at the State University “Uzhhorod National University” <a href="https://www.uzhnu.edu.ua/uk/infocentre/get/20131">https://www.uzhnu.edu.ua/uk/infocentre/get/20131</a>. The procedure for assessing applicants for higher education also takes into account the results of non-formal education in accordance with the Regulations on the procedure for recognition at the State University “Uzhhorod National University” of learning outcomes obtained in non-formal education <a href="https://www.uzhnu.edu.ua/uk/infocentre/get/22966">https://www.uzhnu.edu.ua/uk/infocentre/get/22966</a>.</p>
Training of foreign applicants for higher education	The educational program provides for the study of foreign students in Ukrainian or English in accordance with the law.

## 2. List of Educational and Professional Program Components and their Logical Sequence

### 2.1. List of the Educational and Professional Program Components

Code	Components of the Educational Program (educational subjects, course projects (course papers)) practice, qualifying paper)	Number of Credits	Form of Final Control
1	2	3	4
<b>Compulsory Components of the Educational Program</b>			
CC 1.	English for professional purposes	4	Credit
CC 2.	Ukrainian language for professional purposes / Ukrainian as a foreign language (for foreign applicants)	3	Credit
CC 3.	Occupational safety in the field, life safety and civil protection/ Ukrainian as a foreign language (for foreign applicants)	3	Credit
CC 4.	Latin language and medical terminology	4	Credit
CC 5.	Civic education / History and culture of Ukraine (for foreign applicants)	3	Credit
	<i>Total</i>	<i>17,0</i>	
CC 6.	Medical biology	4	Exam
CC 7.	Medical and biological physics	4	Credit
CC 8.	Medical chemistry	4	Credit
CC 9.	Bioorganic chemistry	3	Credit
CC 10.	Human anatomy	13	Credit, Exam
CC 11.	Histology, cytology and embryology	9	Credit, Exam
CC 12.	Physiology	9	Exam
CC 13.	Microbiology, virology and immunology	8,5	Credit, Exam
CC 14.	Biochemistry	6,5	Exam
CC 15.	Social medicine, public health	5	Exam
CC 16.	Patient care (practice)	6	Credit
CC 17.	Hygiene and ecology	5	Exam
CC 18.	Medical informatics	3	Credit
CC 19.	Training of reserve officers of the subject area "Health". Specialty "Medicine"	3	Credit
CC 20.	Pathomorphology	6	Exam
CC 21.	Pathophysiology	6	Exam
CC 22.	Pharmacology	6	Exam
CC 23.	Propaedeutics of internal medicine	5	Exam
CC 24.	Propaedeutics of pediatrics	5	Credit
CC 25.	General surgery (with clinical anatomy and operative surgery)	8	Exam
CC 26.	Medical psychology	3	Credit
CC 27.	Nursing practice	6	Credit
CC 28.	Radiology	4	Credit
CC 29.	Internal medicine, including endocrinology, medical genetics	9,5	Exam
CC 30.	Pediatrics	4	Exam

CC 31.	Surgery	4	Exam
CC 32.	Obstetrics and gynecology	6,5	Exam
CC 33.	Urology	3	Credit
CC 34.	Otolaryngology	3	Credit
CC 35.	Ophthalmology	3	Credit
CC 36.	Neurology	4	Exam
CC 37.	Psychiatry, narcology	3	Credit
CC 38.	Dermatology, venereology	3	Credit
CC 39.	Physical rehabilitation, sports medicine	3	Credit
CC 40.	Forensic Medicine. Medical law of Ukraine	3	Credit
CC 41.	Training of reserve officers of the subject area "Health". Specialty "Medicine"	4	Credit
CC 42.	Clerkship	6	Credit
CC 43.	Internal medicine II, including clinical pharmacology, clinical immunology and allergology, occupational diseases	10	Exam
CC 44.	Infectious diseases and phthisiology	5,5	Exam
CC 45.	Epidemiology and principles of evidence-based medicine	3	Credit
CC 46.	Surgery II, including pediatric surgery, neurosurgery	6,5	Exam
CC 47.	Oncology and radiation medicine	3	Credit
CC 48.	Traumatology and orthopedics	3	Credit
CC 49.	Anesthesiology and intensive care	3	Credit
CC 50.	Urgent and emergency medical care	3	Credit
CC 51.	Pediatrics II with children's infectious diseases	5	Exam
CC 52.	Training of reserve officers of the field of knowledge "Health". Specialty "Medicine" III	3	Credit
CC 53.	Clerkship II	6	Credit
CC 54.	Social medicine, public health and hygiene	3	Credit
CC 55.	Infectious diseases II	3	Credit
	Attestation (Unified State Qualification Exam)	3	Exam
	<i>Total</i>	<i>251,0</i>	
The total volume of compulsory components:		268,0	
<b>Elective Components of the Educational Program</b>			
<i>General Training</i>			
EC 1.	Elective course within a social-humanitarian cycle	3	Credit
<i>Professional Training</i>			
EC 2.	Elective courses for the 1 <sup>st</sup> year of study	6	Credits
EC 3.	"Elective Course of the Foreign Language (English) For Medical Purposes" (1 <sup>st</sup> year)	4	Credit
EC 4.	"Elective Course of the Foreign Language (English) For Medical Purposes" (2 <sup>nd</sup> year)	7	Credit
EC 5.	Elective courses for the 2 <sup>nd</sup> year of study	3	Credits
EC 6.	"Elective Course of the Foreign Language (English) For Medical Purposes" (3 <sup>rd</sup> year)	4	Credit
EC 7.	Elective courses for the 3 <sup>rd</sup> year of study	6	Credits
EC 8.	Elective courses for the 4 <sup>th</sup> year of study	3	Credits
EC 9.	Elective courses for the 5 <sup>th</sup> year of study	5	Credits
EC 10.	Elective cycles for the 6 <sup>th</sup> year of study	6	Credits
EC 11.	Elective blocks (profiles) of medical specializations	45	Credit
Total volume of elective components:		92,0	
<b>TOTAL VOLUME OF THE EDUCATIONAL PROGRAM:</b>		<b>360,0</b>	

### **EC13. PROFILE: General practice - family medicine**

*Internal medicine III*

*Pediatrics including children's infectious diseases in general practice*

*Surgery including pediatric surgery in general practice*

*Obstetrics and gynecology in general practice*

*General practice - family medicine (profile course)*

*Oncology and geriatrics in general practice*

*Simulation training (profile practice)*

*Clerkship profile*

### **EC13. PROFILE: Internal medicine**

*Internal medicine (profile course)*

*Pediatrics including children's infectious diseases III*

*Surgery including pediatric surgery III*

*Obstetrics and gynecology II*

*General practice - family medicine*

*Oncology and geriatrics in internal medicine*

*Simulation training (profile practice)*

*Clerkship profile*

### **EC13. PROFILE: Surgery**

*Internal medicine III*

*Pediatrics including children's infectious diseases III*

*Surgery including pediatric surgery (profile course)*

*Obstetrics and gynecology II*

*General practice - family medicine*

*Oncology and geriatrics in surgery*

*Simulation training (profile practice)*

*Clerkship profile*

### **EC13. PROFILE: Pediatrics**

*Internal medicine III*

*Pediatrics including children's infectious diseases (profile course)*

*Surgery including pediatric surgery III*

*Obstetrics and gynecology II*

*General practice - family medicine*

*Pediatric oncology*

*Simulation training (profile practice)*

*Clerkship profile*

### **EC13. PROFILE: Obstetrics and gynecology**

*Internal medicine III*

*Pediatrics including children's infectious diseases III*

*Surgery including pediatric surgery III*

*Obstetrics and gynecology (profile course)*

*General practice - family medicine*

*Oncogynecology*

*Simulation training (profile practice)*

*Clerkship profile*

**\* The list of elective components of general training, professional training and elective blocks of corresponding profile of medical specialization offered to students is updated and changed annually based on the suggestions of the staff members in account to previous theoretical developments and contemporary practical experience.**

### **3. Form of attestation of applicants for higher education**

Attestation is carried out in the form of the Unified State Qualification Exam (hereinafter - the Qualification Exam). The Unified State Qualification Exam is conducted in accordance with the Unified State Qualification Exam Procedure for the students enrolled in the Master's academic program and majoring in the subject area "Health". The Unified State Qualification Exam consists of such components as an integrated test exam "STEP"; objective structured clinical exam; international exam in the basics of medicine; exam in English for professional purposes. The "STEP" exam is conducted in two test stages – "STEP 1" and "STEP 2". At the first stage the level of professional competence in general scientific (fundamental) disciplines is assessed. At the second stage, the level of professional competence in professionally oriented (clinical) disciplines is assessed. The exam in English for professional purposes is held in one stage at the same time as the "STEP" exam. An objective structured practical (clinical) exam is conducted in one stage by an examination board formed at a higher educational institution. The international exam in the basics of medicine is conducted in two stages: the international exam in the basics of medicine (fundamental disciplines) and the international exam in the basics of medicine (clinical disciplines). The international exam in the basics of medicine is conducted in cases specified by law.







Program Learning Outcomes	Educational Components																														
	EC28	EC29	EC30	EC31	EC32	EC33	EC34	EC35	EC36	EC37	EC38	EC39	EC40	EC41	EC42	EC43	EC44	EC45	EC46	EC47	EC48	EC49	EC50	EC51	EC52	EC53	EC54	EC55			
PLO 1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
PLO 2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
PLO 3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
PLO 4	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
PLO 5		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
PLO 6		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
PLO 7	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
PLO 8		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
PLO 9		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
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PLO 14			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
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PLO 18		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
PLO 19															+				+	+									+	+	
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PLO 29																		+	+										+	+	

### List 1 (syndromes and symptoms)

1. Amenorrhea
2. acromegaly
3. anemic syndrome
4. anuria and oliguria
5. arterial hypertension
6. arterial hypotension
7. chest pain
8. abdominal pain
9. back pain and limb pain
10. perineum pain
11. sore throat
12. vomiting
13. broncho-obstructive syndrome
14. bulbar syndrome
15. pleural effusion
16. paranoid-hallucinatory syndrome
17. fever
18. hemorrhagic syndrome
19. hypoglycemia
20. hyperglycemia
21. exanthem, enanthem
22. hepatomegaly and Banti's syndrome
23. headache
24. dysuria
25. dysmenorrhea
26. dyspepsia
27. dysphagia
28. diarrhea
29. jaundice
30. shortness of breath
31. asphyxia
32. constipation
33. dizziness
34. child growth failure
35. cardiomegaly
36. cough
37. intestinal obstruction
38. coma
39. external bleeding
40. internal bleeding
41. hemoptysis
42. Lactorrhea
43. lymphadenopathy
44. meningeal syndrome
45. uterine bleeding
46. edematous syndrome
47. obesity (+ body weight)
48. paresis, paralysis
49. premature sexual development
50. fractures of tubular bones
51. tense pneumothorax (closed)
52. relaxed pneumothorax (open)
53. valvular pneumothorax
54. polyuria
55. portal hypertension
56. speech disorder (aphasia)
57. heart rhythm and conduction disturbances
58. sudden cardiac arrest
59. disorders of consciousness
60. itchy skin
61. urinary syndrome
62. dementia syndrome
63. dehydration syndrome
64. indigestion syndrome
65. thirst
66. stridor
67. joint syndrome
68. convulsions
69. weight loss
70. cyanosis
71. partial or complete loss of vision
72. partial or complete hearing loss
73. gastrointestinal bleeding

## 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 damage

### II) Mental and behavioral disorders:

11. bipolar affective disorder
12. acute psychosis, including 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 headaches
20. perinatal encephalopathy
21. disorders of the autonomic nervous system
22. disorders of cerebral circulation
23. vertebrogenic disorders of the nervous system, neuropathy and polyneuropathy
24. multiple sclerosis
25. chronic occupational injuries (vibration disease, occupational dyskinesias)
26. strokes (ischemic, hemorrhagic)

#### *Eye diseases*

27. blepharitis
28. glaucoma
29. conjunctivitis
30. foreign body in the organ of vision
31. injuries of the organ of vision
32. retinopathy
33. exophthalmos

#### *Diseases of the throat, ears, nose*

34. laryngitis
35. otitis
36. peritonsillar abscess
37. sinusitis
38. tonsillitis
39. injuries of the throat, ear, nose

### IV) Diseases of the cardiovascular system:

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

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

60. asphyxia
  61. bronchial asthma
  62. bronchitis
  63. bronchiectatic disease
  64. bronchopulmonary dysplasia
  65. congenital malformations of respiratory organs
  66. acute respiratory distress syndrome
  67. respiratory failure
  68. infectious and destructive lung diseases
  69. pulmonary insufficiency
  70. mediastinitis
  71. cystic fibrosis
  72. lung and mediastinal neoplasms
  73. pleurisy
  74. pneumoconiosis
  75. pneumonia
  76. pneumothorax
  77. respiratory distress syndrome and pneumonia of newborns
  78. foreign body in the respiratory tract
  79. chest injuries (superficial, open)
  80. chronic obstructive pulmonary disease
- ### VI) Diseases of digestive organs:
81. prolapse of the rectum
  82. ulcer disease
  83. congenital malformations of digestive organs

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

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

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

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

121. allergic dermatoses (dermatitis, toxidermia, eczema)
122. bacterial diseases of the skin and subcutaneous tissue, pyoderma
123. purulent-inflammatory diseases of fingers and hand
124. purulent-inflammatory diseases in children and newborns

125. mycoses
126. burns and frostbite
127. parasitic skin diseases (scabies, lice)
128. psoriasis
129. bullous dermatoses
130. specific surgical infection (anaerobic clostridial and non-clostridial)

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

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

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

151. acromegaly and pituitary gigantism
152. hypothyroidism
153. hypotrophy, protein-energy deficiency
154. hypopituitarism
155. thyrotoxicosis
156. endemic goiter
157. diabetes insipidus
158. nodular goiter, tumors of the thyroid gland
159. obesity
160. congenital dysfunction of the cortex of the adrenal glands
161. violation of calcium-phosphorus metabolism, vitamin D metabolism
162. genetic syndromes with endocrine complications: Turner syndrome, Russell-Silver syndrome, Prader-Willi syndrome, Laron syndrome, etc.)

163. thyroiditis  
 164. Cushing's disease and syndrome  
 165. chronic adrenal insufficiency  
 166. diabetes  
 167. hypoparathyroidism  
 168. hyperparathyroidism  
 169. tumors of the adrenal glands  
 170. organic (including congenital) hyperinsulinism  
 171. neuro-endocrine tumors  
 172. tumors of the pituitary gland  
 173. premature sexual development  
 174. hypogonadism  
 175. cryptorchidism  
 176. violation of gender differentiation  
 177. Klinefelter's syndrome  
 178. dwarfism in a SGA born child  
**XI) Infectious and parasitic diseases:**  
 179. bacterial food poisoning  
 180. erysipelas  
 181. botulism  
 182. viral hepatitis  
 183. chicken pox  
 184. congenital infections of the newborn  
 185. helminth infections  
 186. herpesvirus diseases  
 187. influenza and other acute respiratory viral infections  
 188. diphtheria  
 189. infectious mononucleosis  
 190. candidiasis  
 191. whooping cough  
 192. intestinal bacterial infections  
 193. intestinal viral infections  
 194. measles  
 195. tick-borne viral encephalitis  
 196. rubella  
 197. leptospirosis  
 198. malaria  
 199. meningococcal infection  
 200. especially dangerous viral infections  
 201. mumps infection  
 202. poliomyelitis  
 203. tetanus  
 204. protozoan infections  
 205. rickettsiosis  
 206. anthrax  
 207. rabies  
 208. scarlet fever  
 209. tuberculosis of different localization  
 210. Lyme disease  
 211. disease caused by human immunodeficiency virus (HIV)

212. chlamydial infections  
 213. cholera  
 214. plague  
**- sexually transmitted infectious diseases:**  
 215. gonococcal infection  
 216. syphilis  
**XII) Diseases of the female reproductive system**  
*pathologies of pregnancy:*  
 217. multiple pregnancy  
 218. vomiting of pregnant women  
 219. pregnancy with extragenital pathology  
 220. fetal distress during pregnancy  
 221. fetal growth retardation  
 222. immune conflict during pregnancy  
 223. hydatidiform mole  
 224. placenta previa  
 225. premature detachment of the placenta  
 226. premature birth and delayed pregnancy  
 227. ectopic pregnancy  
 228. preeclampsia and eclampsia  
 229. spontaneous abortion  
*pathology of childbirth and the postpartum period:*  
 230. anomalies of labor activity  
 231. abnormalities of the pelvis, including clinically narrow pelvis  
 232. fetal distress during childbirth  
 233. childbirth and postpartum bleeding  
 234. incorrect positions and presentation of the fetus  
 235. postpartum septic diseases  
 236. injuries of the uterus and birth canal  
*gynecological diseases:*  
 237. abnormal uterine bleeding  
 238. ovarian apoplexy  
 239. infertility  
 240. congenital malformations of the female genital organs  
 241. benign dysplasia of mammary glands  
 242. benign and precancerous neoplasms of female genital organs  
 243. endometriosis  
 244. inflammatory diseases of female genital organs  
 245. malignant neoplasms of female genital organs  
 246. mastitis  
 247. neoplasm of the mammary gland

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

1. asphyxia (including neonatal)
2. hypertensive crisis
3. hypoglycemia (coma)
4. acute respiratory failure
5. acute urinary retention
6. acute adrenal insufficiency
7. acute kidney damage
8. acute liver failure
9. acute heart failure
10. acute poisoning, including combat poisonous substances
11. acute psychosis
12. acute coronary syndrome
13. acute radiation and chemical damage, including in field conditions and emergency situations
14. acute cerebral insufficiency
15. diabetic coma, including ketoacidotic, hyperosmolar, lacticidemic coma
16. electric shock
17. status epilepticus
18. acute bleeding
19. syndrome of acute blood loss, including in field conditions and emergency situations
20. sudden cardiac arrest
21. collapse
22. impaired consciousness and comatose states
23. renal colic
24. biliary colic
25. acute anaphylactic reactions
26. acute heart rhythm disturbances,
27. cold injury, including in field conditions
28. thermal injury, including in field conditions
29. venous and arterial thromboembolism
30. convulsive syndrome
31. drowning
32. strangulation asphyxia
33. normal childbirth
34. shocks
35. bites of snakes, insects, animals
36. penetrating wounds, including during hostilities
37. burns, including in field conditions
38. 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. Zimnitskiy's test - urine analysis
5. Nechiporenko's test - urine analysis
6. alpha-amylase activity in blood and urine, fecal elastase 1
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. ferritin, iron and copper levels in blood serum
13. creatinine, urea in blood and urine, 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 parenchymal organs biopsy
22. histomorphological study of mucous membranes biopsy
23. histomorphological study of muscle and skin biopsy
24. histomorphological examination of the placenta
25. study of the internal environment of premises (indicators of microclimate, natural and artificial lighting, bacteriological and chemical air pollution).
26. study of the function of external breathing
27. standard ECG (in 12 leads)
28. endoscopic examination of bronchi
29. endoscopic examination of the digestive tract
30. echocardiography and doplerography
31. stool test
32. general blood test
33. urinalysis
34. sugar and acetone in urine
35. general analysis of cerebrospinal fluid
36. general analysis of sternal puncture
37. general analysis of sputum
38. general immunological blood profile
39. serological reactions in infectious diseases
40. express tests for viral diseases
41. amplification methods for infectious diseases (PCR, LLR)
42. serological reactions in autoimmune diseases
43. chemical and bacteriological studies of the external human environment (atmospheric air, water bodies, soil).
44. microbiological research of biological fluids and secretions
45. measurement of radiation (sound, vibration, ionizing), individual radiometry.
46. methods of instrumental visualization of the thyroid gland
47. X-ray contrast angiography
48. methods of instrumental visualization of abdominal organs
49. methods of instrumental visualization of chest cavity organs
50. methods of instrumental visualization of the genitourinary system
51. methods of instrumental visualization of the fetus
52. methods of instrumental visualization of the skull, spine, spinal cord, bones and joints
53. methods of instrumental visualization of the mammary gland
54. tuberculin diagnostics
55. multi-moment fractional study of bile and pH-metry of the stomach and esophagus
56. chemical, organoleptic, bacteriological research of food products and drinking water
57. cytological examination of the cervix
58. measurement of ergonomic indicators of difficulty and intensity of work.

### **List 5 (medical manipulations)**

1. perform indirect heart massage
2. perform artificial respiration
3. perform defibrillation using a manual automatic cardioverter defibrillator
4. register a standard 12-lead ECG
5. to temporarily stop external bleeding
6. perform primary surgical treatment of the wound, dressing, removal of skin sutures, including in field conditions
7. apply hemostatic tourniquets and use hemostatic agents, including in field conditions
8. install a nasogastric and orogastric tube
9. carry out transport immobilization
10. administer drugs (intravenous jet and drip, intraosseous), incl. in field conditions
11. provide peripheral venous access
12. measure blood pressure
13. to restore the patency of the respiratory tract
14. perform bladder catheterization with a soft probe
15. to carry out anterior tamponade of the nose, to carry out a clinical examination of the organ of vision and ENT organs
16. perform the technique of "skin-to-skin" contact of the newborn and early attachment to the breast
17. carry out a digital examination of the rectum and with the help of a rectal mirror
18. carry out a digital examination of the prostate
19. carry out a clinical examination of the mammary glands
20. perform a pleural puncture
21. perform a puncture of the abdominal cavity through the posterior vault
22. determine blood groups, Rhesus affiliation
23. transfuse blood components and blood substitutes
24. perform a bimanual examination and examination of a woman in mirrors
25. perform pelvimetry;
26. carry out external (Leopold techniques) and internal obstetric examination;
27. perform auscultation of the fetus
28. take swabs for bacterioscopic, bacteriological, cytological examination
29. palpate the thyroid gland
30. to conduct an examination and evaluation of the external genitalia of boys
31. assess the state of sexual development of children