

MINISTRY OF HEALTH OF UKRAINE  
KHARKIV NATIONAL MEDICAL UNIVERSITY

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**TRAINING PROGRAM IN PRIMARY SPECIALTIES  
"GENERAL MEDICAL PRACTICE"**

Discipline: I «Healthcare and social security»

A component of education: postgraduate education, primary specialization

Specialty: 12 «Medicine»

Specialty in internship: «General medical practice»

Previous education: Master's degree in specialty 222 «Medicine»,  
12 «Medicine», 228 «Pediatrics», 13 «Pediatrics»

## **PROGRAM DEVELOPERS**

The program is developed based on the Model Program for Internship Training in the specialty "General Medical Practice," approved by the Order of the Ministry of Health of Ukraine dated July 29 2024, № 1335

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## **INTRODUCTION**

The program of primary specialization "General medical practice" for foreigners and stateless persons (hereinafter - the Program) was created on the basis of the program of primary specialization "General medical practice" for foreigners and stateless persons, which was developed by a group of experts of the Ministry of Health on some issues of primary specialization "General medical practice" and approved by Order of the Ministry of Health of Ukraine No. 1335 dated July 29, 2024.

The Program defines the content of specialization training, sets requirements for the volume and level of training of foreigners and stateless persons.

The purpose of the Program: formation of professional competencies of a general practitioner based on the appropriate level of practical and theoretical training.

The training of persons in the specialization is carried out according to individual study plans developed on the basis of the study plan and the Program.

The training program in specialization is a single set of educational and practical components, planned and organized in such a way as to ensure that a person acquires the competencies defined by the Program.

The specialization training program consists of two parts: educational and practical. The educational and practical part of the specialization is conducted in a higher education institution. The internship base for foreigners and stateless persons with the specialty "General medical practice" can be clinical departments located on the basis of health care institutions, which are designated by the Ministry of Health as internship bases for intern doctors and in which the requirements for knowledge of the English language are met in accordance with the Regulation about the internship.

The teaching of the main sections is carried out in accordance with the current protocols and standards of treatment, determined by the orders of the Ministry of Health of Ukraine regarding the provision of medical care to the relevant categories of patients.

During the entire period of training in specialization, foreigners and stateless persons must master a certain list of practical skills and manipulations for the formation of professional competencies. Four levels of skill/competence mastery are provided: A, B, C, D.

## I. PROGRAM PROFILE

<b>Discipline</b>	I «Healthcare and social security»
<b>A component of education</b>	postgraduate education, primary specialization
<b>Specialty</b>	«General medical practice»
<b>Admission requirements</b>	Master's degree in the field of knowledge I «Healthcare and social security» master's degree in specialty 222 «Medicine», I2 «Medicine», 228 «Pediatrics», I3 «Pediatrics»
<b>Form of passage primary specialization</b>	Internal
<b>Language(s) of training in primary specialization</b>	Ukrainian, English
<b>Academic rights of foreigners and stateless persons</b>	Persons from among foreigners and stateless persons who have completed training under the program of primary specialization "General medical practice" and have a state certificate of proficiency in the state language not lower than the average level of the first degree, issued by the National by the State Language Standards Commission in accordance with the Law of Ukraine "On Ensuring the Functioning of the Ukrainian Language as the State", have the right to continue their studies at the internship training program with a shortened training period in accordance with the requirements of the Order of the Ministry of Health of Ukraine dated June 22, 2021 No. 1254 " On the approval of the Regulations on Internship", registered in the Ministry of Justice of Ukraine on August 17, 2021 under No. 1081/36703.
<b>Monitoring and evaluation</b>	In accordance with the order of the Ministry of Health of Ukraine dated June 22, 2021 No. 1254 "On the approval of the Internship Regulations", registered with the Ministry of Justice of Ukraine on August 17, 2021 under No. 1081/36703 with changes.
<b>Mastery level</b>	For each competence, practical skill is defined in the range from "A" to "D": <b>A:</b> Teaches or supervises others in performance, management, demonstration. <b>B:</b> Performs, manages, demonstrates independently. <b>C:</b> Executes, manages, demonstrates under supervision. <b>D:</b> Has knowledge, describes.

<b>Scope of the program</b>	<p>The total duration is 12 months.</p> <p>Theoretical training 3 months (527 hours / 17.5 ECTS credits), including an additional program of 72 hours / 2.4 ECTS credits.</p> <p>Practical training 9 months (1273 hours, 42.4 ECTS credits).</p>
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## II. ORGANIZATION OF TRAINING

The duration of training in the primary specialization is 12 months (1872 hours; 52 weeks, 62.4 ECTS credits).

Training under the program of primary specialization "General medical practice" at the relevant clinical departments of institutions of higher / postgraduate education and involves clinical work in basic institutions is 12 months (1872 hours; 52 weeks, 62.4 ECTS credits).

Training in the primary specialization "General medical practice" begins on September 1 at the department of a higher educational institution/postgraduate education institution (or the date determined according to the individual training schedule, but no later than November 1 of the current year).

### **The schedule of the educational and practical part of the primary specialization**

<b>Months</b>											
IX	X	XI	XII	I	II	III	IV	V	VI	VII	VIII
EP	EP	PP	PP	PP	PP	PP	PP	PP	PP	PP	EP

#### Note:

EP – the educational part of training at the department;

PP – the practical part of training at the clinical department.

### III. LIST OF MANDATORY COMPETENCES COMPLETION OF THE SPECIALIZATION

**Table 1**

Type of competences	Code and description of competencies
<b>Integral competence</b>	IC 01. The ability to independently carry out professional activities and solve clinical tasks specific to primary medical care based on a patient-oriented holistic (holistic) approach in working with each patient/family, which is built on long-term trusting doctor-patient relationships regardless of social status, age, gender, medical problem and other characteristics of the patient, effective management of medical practice, ensuring accessibility, fairness and quality of primary medical care in accordance with interests of the community and legislation of Ukraine.
<b>General competences</b>	<p>GC 01. Ability to communicate orally and in writing in Ukrainian and/or English when filling out medical documentation and communicating with patients.</p> <p>GC 02. Ability to use information and communication technologies, skills in working with computer equipment, electronic document management and electronic medical documentation.</p> <p>GC 03. Ability to think abstractly, search, analyze, synthesize, process information, in particular from various sources and in relation to one's field of activity.</p> <p>GC 04. Ability to analyze one's medical activity, the quality of medical care, write analytical reports, publications, create presentations, reports.</p> <p>GC 05. Ability to critical clinical thinking, analysis and solution of situational problems in medical practice.</p> <p>GC 06. Compliance with ethical and deontological norms in professional activity, bioethics, medical law (proper professional behavior).</p> <p>GC 07. The ability to cooperate in a team, to carry out effective communication in a team, to organize work in a team, to carry out the distribution of responsibilities, to involve other specialists from different levels of medical care and other services to work in a team if necessary.</p>

	<p>GC 08. The ability for constant professional self-improvement, development and training, self-evaluation of one's own achievements and raising their level.</p> <p>GC 09. Demonstration of social activity and responsibility in medical activity.</p> <p>GC 10. The ability to collect medical information about the patient (in English and/or Ukrainian) and analyze clinical data, interpret the results of laboratory and instrumental studies, determine the diagnosis and tactics of patient management.</p>
<b>Professional competence</b>	<p>PC 01. Ability to perform effective management primary medical care and distribution of resources from orientation to the interests of the community, epidemiological data regarding the incidence and prevalence of various pathological conditions, ensuring proper quality of primary medical care and compliance with applicable laws regulatory and medical-technological documents, legislation of Ukraine.</p> <p>PC 02. Ability to effectively manage a team primary medical care, involve and to coordinate the work of specialists of other services for provision of patient-oriented comprehensive, integral (holistic) approaches to the solution patient problems.</p> <p>PC 03. Ability to make decisions and provide assistance in the conditions of an uncertain diagnosis, at undifferentiated problems of the patient and management with many variables at multisystem diseases</p> <p>PC 04. Ability to apply complex holistic approach when providing assistance with consideration psychosocial, religious, cultural and others aspects.</p> <p>PC 05. Ability to create optimal clinical route of the patient taking into account priority acute conditions ("red flags"), features of diagnostic and treatment approaches to providing</p>



primary medical care in cases of uncertainty undifferentiated conditions (syndromes, symptoms), effective use of available resources and involving, if necessary, multidisciplinary assistance teams.

primary medical care in cases of uncertainty.

PC 06. Ability to conduct patient-oriented counseling and providing medical assistance patients (in English and/or Ukrainian), provide continuous long-term care at chronic non-infectious diseases, conduct them prevention, monitoring and treatment; build long-term trusting relationship with the patient and family.

PC 07. Ability to conduct motivational counseling with patients (in English and/or Ukrainian) of all age groups, on the prevention of diseases and correction of lifestyle and risk factors, adherence to a healthy lifestyle, nutrition, physical activity, stress management, fight against addictions.

PC 08. The ability to conduct sanitary, educational and educational work with the population (in English and/or Ukrainian), organize and conduct schools for patients with chronic diseases, involving members of the primary medical care team.

PC 09. The ability to assess the psychophysical development of children of different ages, to calculate the diet of a healthy and sick child, to prevent rickets and other diseases in childhood, to plan and carry out preventive vaccinations.

PC 10. Ability to provide emergency care and organize a patient route with emergency conditions, injuries, poisonings, wounds to patients of all age groups, pregnant women and patients with immunodeficiency.

PC 11. Ability to assess risk factors, prevention, diagnosis and treatment of the most frequent diseases and their complications in patients of all age groups, pregnant women and patients with immunodeficiency, namely:

internal organs (cardiovascular, respiratory, endocrine, hepatobiliary systems; kidneys and urinary tract, gastrointestinal tract; hematopoietic organs), allergic diseases, musculoskeletal system, female and male sexual sphere, including -

counseling on family planning and contraception, diseases of the ear, throat and nose, diseases of the organ of vision, skin diseases, infectious diseases, psychological and cognitive disorders, identify and monitor mental illnesses, diseases of the nervous system, with surgical problems (including traumatic injuries, burns and frostbite, initial treatment of wounds, minor surgical manipulations, preoperative preparation and initial stabilization of the condition at the pre-hospital stage).

PC 12. The ability to conduct a physiological pregnancy, monitor the condition of a pregnant woman and the fetus during a physiological pregnancy.

PC 13. The ability to organize and provide palliative care to various categories of patients at home and on an outpatient basis.

PC 14. Ability to carry out prevention and screening of oncological diseases, precancerous conditions; draw up an individual plan for oncology screening and correction of risk factors.

PC 15. The ability to consult on the need for rehabilitation of patients with the most frequent diseases, after surgical intervention, with post-covid syndrome at the level of PMD.

PC 16. Ability to plan, organize and conduct anti-epidemic and quarantine measures, including in the conditions of the COVID-19 pandemic.

PC 17. The ability to organize and provide medical assistance to the population in conditions of natural and man-made disasters and emergencies.

PC 18. The ability to assess the state of health and functional capacity of patients of different age groups and examination of work capacity.

**Table 2**

<b>Resource support for program implementation</b>	
Specific characteristics personnel support	<p>Personnel support of the educational process is responsible</p> <p>Licensing conditions for carrying out educational activities educational institution in the field of higher education.</p> <p>Teaching</p> <p>educational disciplines is carried out scientifically</p> <p>teaching staff of clinical departments</p> <p>institutions of higher education that speak English</p> <p>language at a level not lower than B2 and provide medical assistance to patients in health care institutions, which are clinical bases of departments of higher education institutions.</p>

Specific characteristics materially-technical software	Educational units (departments) of ZVO are modern material and technical support, which is supplemented high-level equipment of powerful clinical bases (university clinics).
<b>Academic mobility</b>	
National credit mobility	Provided by bilateral contracts (agreements)

#### IV. CONTENT OF MANDATORY COMPONENTS OF THE EDUCATIONAL PROGRAM

**Table 1**

**Mandatory components  
Educational part at the department**

№	Name of the course	Duration	
		hours	Credits of ECTS
Course 1	Adult Health (General Practice)	72	2,4
Course 2	Child health (pediatrics, general practice)	72	2,4
Course 3	Women's health (obstetrics, gynecology, family planning and reproductive health)	72	2,4
Course 4	Men's health (urology)	36	1,2
Course 5	Management of patients with surgical problems	72	2,4
Course 6	Injuries and developmental disorders	21	0,8
Course 7	Ophthalmology	10	0,3
Course 8	Otorhinolaryngology	10	0,3
Course 9	Neurology	10	0,3
Course 10	Psychological and mental health (psychiatry)	7	0,25
Course 11	Infectious diseases	7	0,25
Course 12	Pulmonology	13	0,45
Course 13	Dermatovenerology	10	0,3
Course 14	Emergency medical care and initial stabilization of the patient	10	0,3
Course 15	Anesthesiology and resuscitation	30	1,0
Course 16	Physical and rehabilitation medicine	30	1
Course 17	Forensic medicine and toxicology	15	0,5
Course 18	Public health	30	1
Course 19	Optional course: 19.1. Instrumental methods of examination	72	2,4

of surgical patient in general practice 19.2. Instrumental diagnosis of a therapeutic patient in general medical practice (ECG, ultrasound, diagnosis of the most common syndromes) 19.3. Emergency conditions in children in general medical practice (diagnosis of "red flags", emergency care) 19.4. Geriatric patient at general medical practice. Palliative and hospice care		
<b>Total educational part</b>	<b>599</b>	<b>19,9</b>

Table 2

**Mandatory components**  
**Practical part at the clinical department**

№	Name of the course	Duration	
		hours	Credits of ECTS
1	Adult health and emergency care	156	5,2
2	Child health and emergency care	182	6,1
3	Women's health (obstetrics, gynecology, family planning and reproductive health) and emergency care	214	7,1
4	Men's health	36	1,2
5	Management of patients with surgical problems	180	6
6	Injuries and developmental disorders	50	1,75
7	Ophthalmology	30	1,0
8	Otorhinolaryngology	30	1,0
9	Neurology	36	1,2
10	Psychological and mental health (psychiatry)	30	1,0
11	Infectious diseases	25	0,8
12	Pulmonology	25	0,8
13	Dermatovenerology	22	0,7
14	Emergency medical care and initial stabilization of the patient	28	0,6
15	Anesthesiology and resuscitation	30	1,0
16	Physical and rehabilitation medicine	42	1,4
17	Forensic medicine and toxicology	15	0,5

18	Public health	60	2
19	Optional course: 19.1. Instrumental methods of examination of surgical patient in general practice 19.2. Instrumental diagnosis of a therapeutic patient in general medical practice (ECG, ultrasound, diagnosis of the most common syndromes) 19.3. Emergency conditions in children in general medical practice (diagnosis of "red flags", emergency care) 19.4. Geriatric patient at general medical practice. Palliative and hospice care	72	2,4
	<b>All the practical part</b>	<b>1273</b>	<b>42,4</b>
	<b>Test exam</b>	<b>2</b>	<b>0,33</b>
	<b>Control</b>	<b>2</b>	
	<b>Practical skills test and interview</b>	<b>6</b>	
	<b>TOTAL</b>	<b>1872</b>	<b>62,4</b>

**V. PROGRAM RESULTS OF EDUCATIONAL AND PROFESSIONAL TRAINING PROGRAMS  
(EDUCATION AND PRACTICAL PART)**

**Table 1**

**Course 1. ADULT HEALTH AND EMERGENCY CARE  
(general practice)**

**Duration: 228 hours / 7.6 ECTS credits**

<b>Aim</b>	Understand the basic principles of adult health formation, diagnose and treat the most common conditions, acute and chronic diseases in adults	
<b>I Knowledge</b>		<b>II Skills</b>
1. Know the International Classification of Diseases Related to Health in Primary Care Institutions (ICPC 2 (3)); IKH 10 (11). 2. To be familiar with the principles of evidence-based medicine (levels of evidence, strength of recommendations, etc.), the construction of clinical guidelines and local protocols for the provision of medical care. 3. Know the principles of building scientific research in family medicine (choice		1. To be able to apply and interrelate the international classification of health-related problems in primary care institutions (ICPC 2 (3)) and IKH 10 (11). 2. To be able to implement evidence-based recommendations in the practical activity of a doctor; to be able to work with local protocols for the provision of medical care. 3. To be able to prepare a publication for printing; to be able to prepare a speech based on the materials

<p>of an object, construction of a scientific research plan, selection of materials and methods, analysis of results).</p> <p>4. To know the basics of andragogy, methods of training and control of knowledge and skills in the clinic.</p> <p>5. Know the principles of health maintenance: the strategy for combating chronic non-communicable diseases (NCDs), the package of basic interventions for NCDs proposed by WHO (PEN), the principles of counseling to support a healthy lifestyle.</p> <p>6. To know the principles of working with a patient who has oncological problems: to be familiar with evidence-based screening programs for oncological diseases (cervical cancer, breast cancer, skin cancer, colorectal cancer), principles of cancer treatment.</p> <p>7. Know the procedure and route of patients with the most common acute and chronic diseases of the cardiovascular system: acute and chronic coronary syndromes, arterial hypertension, metabolic syndrome, noncoronarogenic diseases of the heart muscle, heart failure, heart rhythm and conduction disorders, acute rheumatic fever, chronic rheumatic heart disease, infectious endocarditis, cardiopulmonary failure.</p> <p>8. Know the procedure and route of patients with the most common acute and chronic diseases of the cardiovascular system: acute and chronic coronary syndromes, arterial hypertension, Metabolic syndrome, noncoronarogenic diseases of the heart muscle, heart failure, heart rhythm and conduction disorders, acute rheumatic fever, CRHS, infectious endocarditis, pulmonary heart failure.</p> <p>9. Know the procedure for ambulatory management of patients with COVID-19, the principles of medical triage and indications for hospitalization.</p>	<p>4. Be able to conduct training in basic clinical skills, training of patients and their families, training in the chronic patient school, motivational counseling.</p> <p>5. Be able to advise patients in order to identify and correct behavioral risk factors for non-communicable diseases (NCDs), assess nicotine addiction and alcohol consumption, general cardiovascular risk according to SCORE. Be able to draw up a plan of preventive measures for chronic non-infectious diseases.</p> <p>6. To be able to apply methods of examination of patients suspected of having cancer. To be able to advise patients with cancer, to deliver bad news.</p> <p>7. Be able to identify, prescribe examination and outpatient treatment, carry out differential diagnosis, formulate a diagnosis for the most common conditions, acute and chronic diseases of the respiratory organs: acute bronchitis, SARS and flu, chronic bronchitis, bronchial asthma, broncho-obstructive syndrome, COPD, community-acquired pneumonia, pleurisy</p> <p>8. Be able to identify, prescribe examination and outpatient treatment, carry out differential diagnosis, formulate a diagnosis for patients with the most common acute and chronic diseases of the cardiovascular system: acute and chronic coronary syndromes, arterial hypertension, metabolic syndrome, non-coronarogenic diseases of the heart muscle, heart failure, heart rhythm and conduction disorders, acute rheumatic fever, chronic rheumatic heart disease, infectious endocarditis, cardiopulmonary failure.</p> <p>9. Be able to prescribe treatment for COVID-19 at the outpatient stage. Monitor, observe and rehabilitate patients after hospitalization, manage patients with post-covid syndrome. To be able to organize the vaccination of different population groups against SARS-Cov-2.</p> <p>10. To be able to control the main clinical symptoms in palliative patients in outpatient settings and at home. Apply medical and psychological, bioethical and religious principles of palliative care</p>
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10. Know the order of organization and provision of medical and social care to palliative patients in outpatient settings and at home.

11. Know the procedure and route of patients with the most common acute and chronic conditions and diseases of the musculoskeletal system: joint syndrome, muscle symptoms, enthesitis, synovitis, tenosynovitis, back pain, neck pain, osteoporosis, osteoarthritis, osteochondrosis, chronic inflammatory joint diseases, gout, reactive arthritis, systemic connective tissue diseases, bone and joint infections, systemic vasculitis.

12. Know the procedure and route of patients with the most common acute and chronic conditions and diseases of the digestive organs: functional diseases of the gastrointestinal tract, diseases of the esophagus, stomach, duodenum, patients after surgical interventions on the digestive organs, celiac disease, chronic inflammatory bowel diseases, diseases hepatobiliary system, functional diseases of the biliary system, chronic pancreatitis, biliary colic, diverticulosis and diverticulitis.

13. Know the procedure and route of patients with the most common acute and chronic conditions and diseases of the kidneys and urinary tract: urinary tract infections (cystitis, urethritis, pyelonephritis), tubulointerstitial nephritis, glomerulonephritis/nephrosis, urolithiasis, nephropathies (diabetic, hypertensive, urate, myeloma, amyloidosis, etc.), chronic kidney disease, acute kidney injury.

14. Know the procedure and route of patients with the most common acute and chronic conditions and diseases of the endocrine system: problems related to nutrition that lead to metabolic disorders (appetite disorders, weight changes, growth retardation,

11. Be able to identify, prescribe examination and treatment, carry out differential diagnosis, formulate a diagnosis for patients with the most common acute and chronic conditions and diseases of the musculoskeletal system: joint syndrome, muscle symptoms, enthesitis, synovitis, tenosynovitis, back pain, neck pain, osteoporosis, osteoarthritis, osteochondrosis, chronic inflammatory joint diseases, gout, reactive arthritis, systemic connective tissue diseases, bone and joint infections, systemic vasculitis.

12. To be able to identify, prescribe examination and treatment, carry out differential diagnosis, formulate a diagnosis for patients with the most common acute and chronic conditions and diseases of the digestive organs: functional diseases of the gastrointestinal tract, diseases of the esophagus, stomach, duodenum, patients after surgical interventions on the digestive organs, celiac disease, chronic inflammatory bowel diseases, diseases of the hepatobiliary system, functional diseases of the biliary system, chronic pancreatitis, biliary colic, diverticulosis and diverticulitis.

13. To be able to identify, prescribe examination and treatment, carry out differential diagnosis, formulate a diagnosis for patients with the most common acute and chronic conditions of kidney and urinary tract diseases: urinary tract infections (cystitis, urethritis, pyelonephritis), tubulointerstitial nephritis, glomerulonephritis/nephrosis, ureters. kidney disease, nephropathy (diabetic, hypertensive, urate, myeloma, amyloidosis, etc.), chronic kidney disease, acute kidney injury.



<p>disorders of electrolyte-water metabolism, deficiency of vitamins/nutrients), obesity and excess body weight, disorders of lipid metabolism and protein/purine metabolism (hyperuricemia), prediabetes, diabetes mellitus, diseases of the thyroid gland (iodine deficiency states, hypothyroidism, hyperthyroidism, nodular and diffuse goiter), diseases of the pituitary gland and hypothalamus, diseases of the adrenal glands.</p> <p>15. Know the procedure and route of patients with the most common acute and chronic immune disorders and diseases of hematopoietic organs: lymphadenopathy, anemia, oncohematological diseases (lymphoma, leukemia, myeloma, lymphogranulomatosis), hypersplenism, blood coagulation disorders, purpura, immunodeficiencies, allergic diseases and conditions, urticaria, anaphylaxis.</p> <p>16. Know the procedure for managing elderly and senile patients. To be familiar with the basics of social gerontology.</p> <p>17. To know the clinical pharmacology of groups of drugs used in the outpatient treatment of diseases of internal organs in adults, the mechanism of action, interaction with other drugs, the most frequent side reactions during use; indications and contraindications.</p> <p>18. Know the procedure for providing urgent, first medical aid in emergency situations.</p> <p>19. Prevention of vaccine-controlled infections, including in pregnant women, in the postpartum period and during breastfeeding.</p>	<p>14. Be able to identify, prescribe examination and treatment, carry out differential diagnosis, formulate a diagnosis for patients with the most common acute and chronic conditions and diseases of the endocrine system: problems related to nutrition, leading to metabolic disorders (appetite disorders, weight changes, delay growth, electrolyte-water metabolism disorders, deficiency of vitamins/nutrients), obesity and overweight, disorders of lipid metabolism and protein/purine metabolism (hyperuricemia), prediabetes, diabetes mellitus, diseases of the thyroid gland (iodine deficiency states, hypothyroidism, hyperthyroidism, nodular and diffuse goiter), diseases of the pituitary gland and hypothalamus, diseases of the adrenal glands.</p> <p>15. Be able to detect, prescribe examination and treatment, carry out differential diagnosis, formulate a diagnosis for patients with the most common acute and chronic immune disorders and diseases of blood-forming organs: lymphadenopathy, anemia, oncohematological diseases (lymphoma, leukemia, myeloma, lymphogranulomatosis), hypersplenism, disorders blood coagulation, purpura, immunodeficiencies, allergic diseases and conditions, urticaria, anaphylaxis.</p> <p>16. To be able to provide primary medical care to patients with the most common geriatric syndromes (syndromes of senile infirmity, sarcopenia, bedsores, urinary incontinence, sleep disorders, mental, psychological, cognitive problems).</p> <p>17. To be able to provide first aid in case of emergency conditions at the pre-hospital stage, ensure the patient's route.</p> <p>18. To be able to conduct consultations on the prevention of vaccine-controlled infections (vaccination) in all ages groups, pregnant women and patients with immunodeficiency.</p>
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Table 2

## Practical skills/competencies

№	List of practical skills/competencies	Mastery level	Mandatory number of manipulations, medical procedures (if possible to determine)
1	Draw up a plan and conduct training and counseling of patients with the most common chronic non-infectious diseases and risk factors for their development (training in managed self-management of bronchial asthma, diabetes school, training of patients with chronic heart failure, risk factors of cardiovascular diseases); on prevention of vaccine-controlled infections; conducting pre-test and post-test counseling to determine HIV infection); counseling of persons with intellectual disabilities.	B	1 for each NCDs
2	Coding according to the ICPC-2 classification	B	10 and more
3	Conduct motivational counseling to support a healthy lifestyle, smoking cessation, healthy eating, physical activity, prevention of sexually transmitted diseases	B	2 of each question
4	Interpretation of the results of laboratory and instrumental research methods in adults: - general blood analysis; - biochemical indicators of blood; - acute-phase indicators of inflammation; - lipidograms; - blood clotting system; - tests to detect diabetes; - SARS-Cov-2 detection tests; - general analysis of urine; - sputum; - poop, co-programs; gastric secretions;	B	Each time when analyzing a clinical case (from 10 for each type of research)

	<ul style="list-style-type: none"> <li>- duodenal contents;</li> <li>- biological fluids of the pericardium, pleura, abdominal cavity;</li> <li>- cytological;</li> <li>- secretions of female and male genital organs;</li> <li>- hormones;</li> <li>- serological;</li> <li>- immunological;</li> <li>- allergy tests;</li> <li>- X-ray;</li> <li>- endoscopy;</li> <li>- electrocardiography;</li> <li>- ultrasonic [incl. echocardiography];</li> <li>- tests with dosed physical activity (cycle ergometry, treadmill);</li> <li>- Holter ECG and blood pressure monitoring;</li> <li>- functions of external breathing;</li> <li>- blood gases and acid-base balance</li> </ul>		
5	Measurement of blood pressure on the upper and lower extremities	A	10 and more
6	Recording and interpretation of ECG in adults	A	10 and more
7	The method of conducting and evaluating the results of the test with a 6-minute walk	B	10 and more
8	Use of inhalers and nebulizers	A	10 and more
9	Pulse oximetry	A	10 and more
10	Peak flowmetry	A	10 and more
11	Conducting and interpreting the results of rapid tests, in particular for SARS-Cov2, troponin level; determination of blood glucose with a glucometer; urine ketones and glucose and others	A	10 and more
12	Emergency care for:		
	- acute coronary syndrome	B	2 and more
	- broncho-obstructive syndrome	B	2 and more
	- acute heart rhythm disturbances	B	5 and more
	- hypertensive crises	B	5 and more
	- allergic reactions	B	2 and more
	- hyperthermia	B	5 and more
	- hypo-/ hyperglycemia	B	5 and more
	- thyrotoxic crisis	B	1 and more
	- spontaneous pneumothorax	B	1 and more
	- pulmonary edema	B	2 and more
	- thromboembolism of the pulmonary artery and main arteries of the limbs	B	1 and more

	- acute kidney injury	C	1 and more
	- acute liver failure	C	1 and more
	- acute adrenal insufficiency	B	1 and more
	- renal, biliary colic	B	2 and more
13	Methods of restoring patency of the upper respiratory tract	A	10 and more
14	Use of a laryngeal mask	B	from 1 (in the conditions training center)
15	Defibrillation	B	from 1 (in the conditions training center)
16	Cardiopulmonary resuscitation of adults	B	10 and more
17	Conicotomy	D	from 1 (in the conditions training center)
18	Tracheotomy	D	from 1 (in the conditions training center)

**Table 3**

**Course 2. CHILDREN'S HEALTH AND EMERGENCY AID (pediatrics, general practice)**

**Duration: 254 hours / 8.5 ECTS credits**

<b>Aim</b>	Understand the basic principles of the formation of a child's health and the provision of medical care to children at the primary level: managing a healthy child, organizing and supporting breastfeeding, integrated management of childhood diseases, management and route of pediatric patients with the most common diseases according to modern recommendations		
<b>I Knowledge</b>		<b>II Skills</b>	
1 Know the basic principles of the organization of children's health care in Ukraine, orders and instructions on children's health care. 2. Know the main statistical indicators of children's health. 3. Know the main preventive strategies for ensuring the healthy development of children and adolescents: assessment of physical development, medical and psychological aspects. 4. Know the principles of integrated management of childhood diseases. 5. Know the main symptoms of chronic eating disorders. 6. Know the scheme of immunization of children and		1 To be able to organize the provision of medical assistance, conduct family counseling with children with special needs. 2 To be able to organize a hospital stay at home. 3 Be able to conduct a physical examination of a child and evaluate the obtained data in accordance with the age norm. 4 To be able to organize breastfeeding support, assess the correctness of the child's attachment to the breast and the effectiveness of breastfeeding. 5 To be able to advise the mother and	

<p>teenagers, types and features of vaccines, contraindications to vaccination.</p> <p>7. Know the peculiarities of the physiology and development of newborns, prematurely born children.</p> <p>8. Know the signs of extreme conditions of newborns.</p> <p>9. Know the peculiarities of management and the route of patients with diseases in the newborn period.</p> <p>10. Know the organizational principles of helping patients with hereditary diseases.</p> <p>11. Know the basic principles of management and the route of pediatric patients with the most common acute and chronic diseases of the respiratory organs.</p> <p>12. Know the basic principles of management and the route of pediatric patients with the most common allergic diseases.</p> <p>13. Know the basic principles of management and the route of pediatric patients with the most common acute and chronic diseases of the circulatory system and the musculoskeletal system.</p> <p>14. Know the basic principles of management and route of pediatric patients with the most common acute and chronic diseases of the blood and hematopoietic organs.</p> <p>15. Know the basic principles of management and the route of pediatric patients with the most common acute and chronic diseases of the digestive organs.</p> <p>16. Know the basic principles of management and the route of pediatric patients with the most common diseases of the kidneys and urinary tract.</p> <p>17. Know the basic principles of management and the route of pediatric patients with the most common endocrine/metabolic disorders.</p> <p>18. Know the main symptoms of oncological diseases in children and route of pediatric patients with oncology.</p> <p>19. Know the basic principles of providing first aid at emergency conditions in children at the pre-hospital stage.</p>	<p>to provide appropriate information on rational feeding of the child.</p> <p>6. Be able to assess and classify signs of danger in a child's condition, determine treatment according to the principles of IVHDV.</p> <p>7. To be able to advise parents and provide appropriate information regarding child vaccinations, to draw up an individual calendar of child vaccinations.</p> <p>8. To be able to organize the provision of nutritional needs of children of different age groups in case of certain diseases.</p> <p>9. To be able to advise parents on the care of a newborn child.</p> <p>10. Be able to evaluate the risk factors of genetic diseases and the results of screening for the main genetic diseases in newborns.</p> <p>11. Be able to conduct a physical examination of a sick child and evaluate the obtained data.</p> <p>12. Be able to prescribe a plan for clinical, laboratory and instrumental examination of a sick child.</p> <p>13. Be able to evaluate the data of clinical analyzes of urine, blood and instrumental methods of examining a child.</p> <p>14. To be able to carry out diagnosis and differential diagnosis of the most common childhood diseases.</p> <p>15. To be able to draw up a plan for treatment, rehabilitation and prevention of the most common childhood diseases.</p> <p>16. To be able to provide emergency medical care for anaphylactic shock, infectious-toxic shock, acute cardiovascular failure, convulsions, hyperthermic syndrome.</p> <p>17. Be able to draw up an individual vaccination plan for children who are vaccinated with violations of the Vaccination Calendar.</p> <p>18. Be able to suspect an oncological or hematological disease in a child and refer the patient for further examination in other health care institutions.</p>
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Table 4

## Practical skills/competencies

№	List of practical skills/competencies	Mastery level	Mandatory number of manipulations, medical procedures (if possible to determine)
1	Coding according to the ICPC classification	B	10 and more
2	Interpretation of the results of laboratory and instrumental research methods in children: - general blood analysis; - biochemical indicators of blood; - blood clotting system; - tests to detect diabetes; - SARS-Cov-2 detection tests; - general urine analysis, urine analysis according to Nechiporenko, Zimnyskyi; - sputum, smear-imprint of the nasal mucosa; - poop, co-programs; - gastric secretions; - duodenal contents; - biological fluids of the pericardium, pleura, abdominal cavity; - cytological; - hormones; - serological; - immunological; - allergy tests; - X-ray; - endoscopy; - ultrasonic; - functions of external breathing; - results of bacteriological and virological cultures - blood and acid-base gases balance	B	Each time when analyzing a clinical case (from 10 for each type of research)
3	Measurement of blood pressure on upper and lower limbs, using a set of cuffs for children	A	10 and more
4	Recording and decoding of ECG in children	A	10 and more
5	Use of inhalers and nebulizers	A	10 and more
6	Pulse oximetry	A	10 and more
7	Peak flowmetry	A	10 and more

8	Conducting and interpreting the results of rapid tests, in particular for SARS-Cov2, troponin level; determination of blood glucose with a glucometer; urine ketones and glucose and others	A	10 and more
9	Prescribe rational nutrition taking into account the type of feeding (natural, artificial, mixed) for children of the 1st year of life	A	10 and more
10	Care of the umbilical cord, skin condition of the newborn	A	10 and more
11	The technique of early application to the chest of a newborn	A	10 and more
12	Assessment of suction efficiency a newborn	A	10 and more
13	Conducting skin-to-skin contact	A	5 and more
14	Assessment of physical and psycho-emotional development of the infant	B	10 and more
15	Assessment of physical and mental development of a child from 1 year to 3 years	B	10 and more
16	Definition of symptoms of Ortolani, Barlow for the detection of dysplasia of the hip joints	B	10 and more
17	Vaccination calendar in Ukraine. Drawing up an individual plan of vaccinations for a child who is vaccinated with a violation of the vaccination calendar	A	10 and more
18	Methods of restoring patency of the upper respiratory tract	A	10 and more
19	Use of a laryngeal mask	B	from 1 (in the conditions training center)
20	Use of an S-shaped laryngeal tube	B	from 1 (in the conditions training center)
21	Defibrillation	B	from 1 (in the conditions training center)
22	Cardiopulmonary resuscitation of children	B	10 and more

**Table 5**

**Course 3. WOMEN'S HEALTH (obstetrics, gynecology, family planning and reproductive health) and emergency care**

**Duration: 286 hours/ 9.5 ECTS credits**

<b>Aim</b>	Understand the physiological features of the female body in different periods of life; master outpatient management of patients with reproductive and gynecological problems; women from physiological pregnancy and in the postpartum period, in menopause	
<b>I Knowledge</b>		<b>II Skills</b>
<ol style="list-style-type: none"> <li>1. To know the physiology of the female body in different periods of life, normal development (and variants), defects in the development of the female reproductive system. Changes in the female body during puberty, pregnancy, and menopause.</li> <li>2. To know the classification, diagnosis and methods of treatment of disorders of the menstrual cycle, premenstrual syndrome.</li> <li>3. To know the causes, differential diagnosis, possibilities of outpatient examination and treatment for genital pain, menstrual pain, pain during intercourse, pelvic pain, pain in the mammary glands.</li> <li>4. Know the causes, differential diagnosis, possibilities of outpatient examination and treatment, route of the patient with vaginal discharge, vaginal bleeding, changes in cytological examination of the cervix.</li> <li>5. Know the clinical manifestations, diagnosis, principles of treatment and route of a patient with polycystic ovary syndrome, fibromyoma, endometriosis.</li> <li>6. Know precancerous conditions and oncological diseases of the female genital area (uterus, endometrium, cervix, ovaries), clinical manifestations, screening programs, risk factors, principles of treatment and the patient's route.</li> <li>7. Know risk factors, classification, diagnosis, screening of breast neoplasms, principles of treatment and rehabilitation, the patient's route.</li> <li>8. Know the diagnosis, prevention and outpatient treatment and route of a patient with inflammatory gynecological diseases, sexually transmitted diseases and venereal diseases.</li> </ol>		<ol style="list-style-type: none"> <li>1. Be able to advise the patient/family on issues of reproductive health and infertility, contraception, healthy lifestyle, preparation for pregnancy, during pregnancy and preparation for childbirth and breastfeeding.</li> <li>2. To be able to prescribe different methods of contraception depending on the age and state of health of the woman.</li> <li>3. To be able to conduct a gynecological examination, take smears from the vagina, cervix and interpret their results and conduct counseling.</li> <li>4. To be able to advise a patient with a menstrual cycle disorder, premenstrual syndrome, pain, inflammatory diseases of the female genital area, prescribe examination and outpatient treatment, determine the patient's route.</li> <li>5. Be able to advise a patient with benign tumors of the female genital area, prescribe a plan for examination, outpatient treatment, and determine the patient's route.</li> <li>6. Be able to advise women about physiological and pathological menopause, prescribe outpatient treatment and examination, determine the patient's route.</li> <li>7. Be able to plan and carry out screening for precancerous diseases of the female genital area and mammary glands and cancer, conduct counseling based on the results of the examination, plan the patient's route of diseases; carry out their diagnosis, emergency prevention of these infections, prescribe emergency contraception, outpatient treatment and determine the patient's route.</li> </ol>

<p>9. Know the main diseases and conditions that lead to female infertility, risk factors, diagnosis, principles of treatment, counseling and the route of the patient.</p> <p>10. Know the organization of the family planning service, the peculiarities of counseling teenagers and young people on reproductive health issues.</p> <p>11. Know methods of contraception, classification, mechanism of action, advantages, disadvantages, necessary examination before starting use, beginning of use, mode of use, side effects, instructions for the patient, emergency contraception.</p> <p>12. Know recommendations for pre-gravid preparation, examination of a woman, determination of health status and risks during pregnancy, appointment of preventive measures and correction of lifestyle, prenatal prevention.</p> <p>13. Know the causes, risk factors, prevention, symptoms of spontaneous abortion at different stages of pregnancy, emergency care, the patient's route; termination of pregnancy: counseling, methods, route of the patient.</p> <p>14. Know the management algorithm of a woman with a physiological pregnancy, a plan for monitoring the condition of the fetus and the pregnant woman, counseling on preparation for childbirth and feeding.</p> <p>15. Know the causes, differential diagnosis, emergency care, route of a patient with vaginal bleeding/discharge during pregnancy, ectopic pregnancy.</p> <p>16. Know the peculiarities of the course, counseling, monitoring, termination of teenage pregnancy.</p> <p>17. Know the classification, symptoms, system for assessing the severity of toxicosis in pregnant women, providing assistance, examination, counseling, the patient's route with early toxicosis; prevention, diagnosis, risk factors, emergency care for preeclampsia and eclampsia.</p>	<p>8. To be able to make a plan and conduct observations of a woman with physiological pregnancy, assess the state of the fetus during pregnancy, detect high-risk pregnancies, determine the patient's route.</p> <p>9. Be able to diagnose and prescribe outpatient treatment for early toxicosis of pregnant women; identify risk factors, diagnose and provide emergency care for preeclampsia and eclampsia.</p> <p>10. Understand how to provide medical assistance during childbirth outside the hospital.</p> <p>11. Be able to advise women on issues of a healthy lifestyle, lactation support, prevention of complications in the postpartum period, conduct outpatient treatment of such complications and determine the patient's route.</p> <p>13. Be able to consult women with extragenital pathology regarding reproductive health, contraception, treatment of somatic diseases during pregnancy and breastfeeding, determine the examination plan and route of the patient.</p> <p>14. Understand how to provide emergency care to women, including pregnant women, with vaginal bleeding, genital injuries, ectopic pregnancy, ovarian apoplexy, preeclampsia and eclampsia, out-of-hospital childbirth, mastitis, postpartum depression, and determine the patient's route.</p>
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<p>18. Know the physiology of normal childbirth, the algorithm for providing care outside the hospital, legal aspects, methods of processing the umbilical cord and removal of the placenta.</p> <p>19. Know the physiology of the postpartum period, monitoring uterine contractions, prevention and outpatient treatment of complications (sepsis, depression, etc.).</p> <p>20. To know the physiology of lactation, counseling and methods of lactation support, complications (mastitis).</p> <p>21. Know the classification of the safety of the use of drugs in pregnant and lactating women, the clinical pharmacology of drugs approved for use in pregnant women for the treatment of the most common diseases (hypertension, urinary tract infections, SARS, pain).</p>	
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Table 6

## Practical skills/competencies

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulations, medical procedures (if possible to determine)</b>
1	Interpretation of the main results laboratory and instrumental methods of examination in pregnant women	B	5 and more
2	Interpretation of the results of female genital secretions	B	5 and more
3	Make a plan for maintaining a physiological pregnancy	B	5 and more
4	Conducting an express pregnancy test	A	5 and more
5	Measurement of the standing height of the uterine fundus, abdominal circumference	B	5 and more
6	Determination of the term of pregnancy and the term of delivery by the dates of the last menstruation and the first movement of the fetus	B	5 and more

7	Assessment of the condition of the fetus (auscultation of the heartbeat, conducting a gravigram)	B	5 and more
8	Gynecological examination. Bimanual examination	B	5 and more
9	Gynecological examination for using mirrors	B	5 and more
10	Taking material from the vagina for bacteriological examination	B	5 and more
11	Collection of material from the cervix for cytological examination	B	5 and more
12	Examination and palpation of the mammary gland	A	5 and more
13	Family planning counseling	B	5 and more
14	Appointment of various methods of contraception	B	5 and more
15	Consulting with prevention of sexually transmitted infections	B	5 and more

**Table 7****Course 4. MEN'S HEALTH (urology)****Duration 72 hours / 2.4 ECTS credits**

<b>Aim</b>	Understand the physiological features of a man's body in different ways periods of life; master the management of patients with men's health problems		
<b>I Knowledge</b>		<b>II Skills</b>	
1. To know the physiology of the male body in different periods of life, normal development (and variants), developmental defects of the male reproductive system (hypospadias, phimosis, undescended testicle, others). Body changes during puberty, andropause. 2. To know the causes, differential diagnosis, possibilities of outpatient examination and treatment for genital pain (penis, scrotum, testicles, priapism, dropsy), pelvic pain. 3. To know the causes, differential diagnosis, possibilities of outpatient examination and treatment, route of a patient with discharge from the urethra. 4. Know the clinical manifestations, diagnosis, outpatient treatment and route of a patient with inflammatory diseases		1. Be able to advise the patient on issues of reproductive health and infertility, sexual health, contraception, healthy lifestyle, STD prevention. 2. Be able to conduct an examination of the genitals, take swabs from the urethra, interpret their results and conduct counseling. 3. To be able to consult a patient with genital malformations and determine the patient's route. 4. Be able to consult a patient with pain in the genitals, inflammatory diseases of the genital area, STDs, prescribe outpatient treatment, determine the patient's route. 5. To be able to advise the patient, plan and carry out prostate cancer screening, determine the patient's route.	

<p>sexual sphere (orchitis, epididymitis, prostatitis, vasculitis, balanitis, others).</p> <p>5. Know the clinical manifestations, diagnosis, outpatient treatment and route of patients with sexually transmitted diseases and venereal diseases.</p> <p>6. Know the examination algorithm, differential diagnosis and emergency care and the route of a patient with urinary retention.</p> <p>7. Know the etiopathogenesis, clinical manifestations, differential diagnosis, outpatient treatment and route of a patient with BPH.</p> <p>8. To know the prostate cancer screening program, laboratory and instrumental, clinical methods of examining a patient with suspected prostate cancer.</p> <p>9. Know precancerous conditions and oncological diseases of the male genital area, risk factors, treatment principles and the patient's route.</p> <p>10. Know the risk factors, classification, diagnosis and prevention of male reproductive and sexual health disorders, treatment methods and the patient's route; men's methods contraception.</p>	<p>6. Be able to consult a patient with BPH, conduct monitoring and outpatient treatment, determine the patient's route.</p> <p>7. Be able to provide emergency care to patients with acute urinary retention, pain, priapism, acute inflammatory conditions.</p>
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Table 8

## Practical skills/competencies

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulations, medical procedures (if possible to determine)</b>
1	Interpretation of the results of male genital secretions	B	5 and more
2	Finger examination of the prostate	B	5 and more
3	Catheterization of the urinary bladder with an elastic catheter in adults and children	B	5 and more (in the conditions of training center)

**Table 9****Course 5. MANAGEMENT OF PATIENTS WITH SURGICAL PROBLEMS****Duration 252 hours / 8.4 ECTS credits**

<b>Aim</b>	Understand the most frequent surgical problems of patients of various ages, provide them with emergency care and draw up an examination plan and route; to organize and conduct management patients after surgery at home/ambulatory
<b>I Knowledge</b>	<b>II Skills</b>
<p>1. Know the clinical manifestations, diagnosis and differential diagnosis of the most common conditions and diseases of adults and children that require surgical treatment: acute abdomen (appendicitis, pinched hernia, acute cholecystitis, complicated gastrointestinal ulcer, gastrointestinal obstruction, diverticulitis, ischemic colitis, acute pancreatitis) ; thrombosis and thromboembolism, airway obstruction, hemothorax, pneumothorax; injuries of the chest, head, abdomen, limbs; external and internal bleeding.</p> <p>2. Know the methods and preparations for various methods of anesthesia, ways of administration.</p> <p>3. Know the algorithm of primary surgical treatment of wounds, methods of suturing wounds, prevention of infection.</p> <p>4. Know the rules of asepsis and antiseptics during outpatient surgical manipulations.</p> <p>5. Know the rehabilitation algorithm of patients after surgical interventions at home and on an outpatient basis.</p> <p>6. Know the diagnosis and outpatient treatment of furunculosis, hidradenitis, carbuncle, hysteria.</p> <p>7. Know the clinical manifestations and methods of diagnosis, prevention, and treatment of abdominal, inguinal, and diaphragmatic hernias.</p> <p>8. Know the clinical manifestations, diagnosis and differential diagnosis, methods of treatment of diseases of the anal area (hemorrhoids, anal fissure, paraproctitis)</p> <p>9. Know the clinical manifestations, risk factors, diagnosis and methods of treatment of varicose veins of the lower extremities and its complications.</p>	<p>1. To be able to diagnose, examine and assess the condition of patients of various ages with suspicion of a condition/disease requiring surgical treatment.</p> <p>2. To be able to provide emergency care and determine the route of patients of various ages with basic conditions and diseases that require surgical treatment.</p> <p>3. To be able to carry out general resuscitation measures for patients of different ages, cardiopulmonary resuscitation and basic life support.</p> <p>4. To be able to carry out primary surgical treatment of wounds; anesthesia; suturing wounds; applying bandages; infection prevention; removal of stitches; assessment of the condition of the wound.</p> <p>5. Be able to draw up a plan for managing the patient at home/ambulatory after surgery (bandages, anesthesia, care of drains, assessment of the wound condition, diagnosis of complications (delirium, fever, sepsis, infection, allergic reactions, shock, urinary retention, oliguria, bleeding); food and drink; exercise regime).</p> <p>6. Be able to carry out outpatient treatment, including surgical for carbuncle, furuncle, furunculosis, impetigo; burns and frostbite.</p> <p>7. To be able to conduct an examination, provide primary medical and emergency care, outpatient treatment and draw up a patient's route for diseases of the anal area (hemorrhoids, anal fissure, paraproctitis).</p> <p>8. To be able to carry out diagnostics, prevention and outpatient treatment of patients with varicose veins of the lower extremities and PTPH.</p> <p>9. Be able to perform outpatient minimally invasive diagnostic and therapeutic surgical interventions (removal of lipomas, warts, growths, ingrown nails; treatment of carbuncle, furuncle,</p>

	hidradenitis; take a slice biopsy of the skin, a needle biopsy and an incisional biopsy). 10. Be able to consult patients and their families regarding surgical manipulations and interventions, anesthesia, biopsy.
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**Table 10****Practical skills/competencies**

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulations, medical procedures (if possible to determine)</b>
1	Primary surgical treatment of wounds	B	2 and more
2	Care and treatment of bedsores, trophic ulcers	B	2 and more
3	Treatment of the burn surface	B	2 and more
4	Applying and removing stitches	B	2 and more
5	Opening of superficial abscesses of the skin and subcutaneous tissues	B	2 and more
6	Stopping external bleeding (applying a tourniquet, tight bandage, squeezing arteries)	B	2 and more
7	Conducting local anesthesia (infiltration, conduction and novocaine blockades)	B	2 and more
8	Gastric lavage	B	2 and more
9	Digital examination of the rectum	B	2 and more

**Table 11****Course 6. INJURIES AND DEVELOPMENTAL DISORDERS****Duration 71 hours / 2.55 ECTS credits**

<b>Aim</b>	Master the provision of care to patients of various ages with injuries and congenital defects of the musculoskeletal system	
<b>I Knowledge</b>		<b>II Skills</b>
1. Know the clinical manifestations, classifications, methods of diagnosis, algorithms for providing emergency and primary medical care and the route of patients of various ages with bone fractures (extremities, shoulder girdle, spine, pelvis, skull, ribs). 2. To know clinical manifestations, methods diagnostics, rendering algorithms		1. Be able to diagnose, examine and assess the condition of patients of various ages with suspected trauma or fracture. 2. To be able to provide emergency care and determine the route of patients of various ages with various injuries, fractures, dislocations, injuries; with crushing syndrome (analgesia, immobilization,

<p>emergency and primary medical care, the route of patients with dislocations/sub-dislocations, injuries/dislocations of the knee, shoulder, elbow, tibia-supial, etc. joints.</p> <p>3. Know the mechanisms of development, classification, diagnosis, prevention of complications, algorithms of examination and emergency care for injuries of the chest, abdominal cavity, pelvic organs; craniocerebral injury.</p> <p>4. To know the clinical manifestations, risk factors, classifications, diagnostic methods, management algorithms for patients with congenital malformations (curves, clubfoot, dysplasia of the hip joints), posture disorders, flat feet.</p> <p>5. To know the system and algorithm for determining the working capacity and rehabilitation of patients after injuries, prosthetics.</p> <p>6. Know the principles of application, types of orthopedic means.</p>	<p>anti-shock measures, stopping bleeding, prevention of complications, medical triage, patient route).</p> <p>3. To be able to conduct an examination and clinical diagnosis and draw up a plan for examination and outpatient treatment of a patient with congenital defects of the musculoskeletal system (dysplasia of the hip joints, torticollis, clubfoot).</p> <p>4. To be able to conduct an examination and clinical diagnosis and draw up a plan for the examination and outpatient treatment of a patient with postural disorders and flat feet. To be able to advise patients on the use of orthopedic devices, restorative techniques after injuries and prosthetics.</p> <p>5. Be able to consult and educate patients/families on the prevention and treatment of postural disorders, physical therapy, principles of treatment and rehabilitation.</p>
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Table 12

## Practical skills/competencies

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulations, medical procedures (if possible to determine)</b>
1	Transport immobilization	B	5 and more
2	Putting on a neck collar	B	5 and more

Table 13

**Course 7. OPHTHALMOLOGY**  
**Duration 40 hours / 1.3 ECTS credits**

<b>Aim</b>	Master the basics of prevention, screening of vision disorders and providing assistance to patients of all ages with the most frequent diseases of the organ of vision
<b>I Knowledge</b>	<b>II Skills</b>

<ol style="list-style-type: none"> <li>1. Know anatomy and physiology of activities of the visual analyzer in patients of different ages.</li> <li>2. To know the main symptoms and syndromes in pathology of the organ of vision; needs of patients with chronic/progressive visual impairment, age-related and toxic degenerative diseases of the macula.</li> <li>3. Know the influence of somatic diseases and medicines for their treatment on the condition of the organ of vision; and the influence of drugs for topical eye treatment on the body's systemic functions.</li> <li>4. Know the manifestations of eye damage in common diseases (hypertension, diabetes, systemic connective tissue diseases, vasculitis, syphilis, cysticercosis, HIV, tuberculosis, toxoplasmosis, rubella, myasthenia gravis, poisoning, multiple sclerosis, cerebral palsy, etc.).</li> <li>5. Know the main manifestations, diagnosis and methods of treatment of congenital defects of the organ of vision (epicanth, coloboma, ankyloblepharon, etc.).</li> <li>6. Know the manifestations, methods of diagnosis and treatment of inflammatory eye diseases (infectious conjunctivitis; allergic conjunctivitis; blepharitis, barley, chalazion; keratitis; dacryocystitis, dacryoadenitis; corneal ulcer; trachoma, herpetic lesion, mollusc; scleritis; episcleritis, uveitis, hypopyon); when using lenses (keratitis, corneal hypoxia, keratoconjunctivitis).</li> <li>7. Know the classification, methods of diagnosis and prevention and treatment of refractive errors (ametropia, anisometropia, astigmatism, presbyopia, amblyopia), cataracts, glaucoma, retinopathy and macular dystrophy, strabismus, blindness, neoplasms of the eye and its appendages.</li> <li>8. Know the symptoms, emergency aid algorithm and the patient's route in emergency situations: retinal detachment, acute blood circulation disturbance of the central vein and retinal artery and its branches; electroophthalmia;</li> </ol>	<ol style="list-style-type: none"> <li>1. Be able to conduct an eye examination accessory apparatus, determine visual acuity, eye mobility, reaction to light, slit lamp examination, ophthalmoscopy, pressure determination and interpret the results.</li> <li>2. To be able to draw up a plan of examination and outpatient treatment of a patient with diseases of the eye and accessory eye apparatus; perform glaucoma screening</li> <li>3. To be able to provide emergency care for injuries, an acute attack of glaucoma and other emergency conditions in ophthalmology.</li> <li>4. Be able to consult and educate patients with chronic/progressive diseases of the organ of vision, prescribe and apply local medicinal products; after surgical treatment of diseases of the eye and accessory apparatus.</li> <li>5. Be able to consult patients/families on the prevention and treatment of refractive errors, modern surgical methods of treating eye diseases, the use of glasses and lenses.</li> </ol>
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contusion/hemorrhage of the eye and its accessory apparatus; foreign body in the eye; traumatic damage to the organ of vision; sunburn of the retina; acute attack of glaucoma. 9. Know the types and methods of correction of the main visual defects (glasses, lenses). 10. Know the indications for referral to specialized specialists and special examination methods (ultrasound, OCT, angiography, MRI, etc.).	
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Table 14

## Practical skills/competencies

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulations, medical procedures (if possible to determine)</b>
1	External examination of the eyelids and conjunctiva	B	5 and more
2	Determination of visual acuity using optical tables	B	5 and more
3	Determination of the field of vision using a set of lenses	B	5 and more
4	Definition of color perception	B	5 and more
5	Measurement and assessment of intraocular pressure by palpation method and tonometry method, including transpalpebral	B	5 and more
6	Examination of the fundus by direct ophthalmoscopy	B	5 and more
7	Therapeutic manipulations: - washing of the conjunctival cavity and cornea - sprinkling drops and placing ointment in the conjunctival sac - removal of superficial foreign bodies from the conjunctiva	B B B	5 and more 5 and more 5 and more



**Course 8. Otorhinolaryngology**  
**Duration: 40 hours / 1.3 ECTS credits**

<b>Aim</b>	Master the basics of prevention, diagnosis and treatment patients of all age groups with the most frequent diseases of the ENT organs	
<b>I Knowledge</b>		<b>II Skills</b>
<p>1. To know the anatomy and physiology of the ENT organs in patients of various ages.</p> <p>2. Know the main symptoms and syndromes in ear diseases (otalgia, hearing impairment, tinnitus, discharge from the ear, congestion in the ears, sulfur plug, dizziness, otosclerosis, deafness, presbycusis; diseases of the external ear and auditory canal, diseases of the middle ear; tubootitis of the inner ear), differential diagnosis, patient route.</p> <p>3. Know the main symptoms and syndromes of diseases of the throat and nose (acute and chronic pharyngitis, laryngitis, tracheitis; tonsillitis, hypertrophy of tonsils/adenoids; rhinitis; sinusitis; adenoiditis; diseases of the external nose); examination methods, differential diagnosis, patient route.</p> <p>4. Know the clinical manifestations, emergency aid algorithm, patient route for foreign bodies and injuries of ENT organs, burns, acoustic ear injury, perforation of the eardrum, acute otitis media, bleeding from ENT organs, acute asphyxia, laryngeal edema, laryngeal stenosis.</p> <p>5. Know the indications for referral to specialized specialists, special methods of examination of ENT organs.</p> <p>6. To know the symptoms, the algorithm of providing emergency care and the route of the patient in the development of orbital and intracranial complications, infectious and inflammatory diseases of the ENT organs.</p> <p>7. To know symptoms, the examination algorithm and the route of a patient with neoplasms of the ENT organs.</p> <p>8. To know the features of diseases of the ENT organs in young children, their diagnosis and the route of the patient.</p> <p>9. To know the clinical pharmacology of drugs used to treat the ear, throat, and nose; drugs that are neuro-/ototoxic influences.</p>		<p>1. Be able to conduct an examination of the ENT organs, determine hearing acuity and interpret results in patients all age groups.</p> <p>2. Be able to draw up a plan of examination and outpatient treatment of a patient with diseases of the ENT organs.</p> <p>3. To be able to provide emergency care for injuries and other emergency conditions for diseases of the ENT organs.</p> <p>4. Be able to consult and educate patients with diseases of the ENT organs, prescribe and apply local and systemic drugs.</p> <p>5. Be able to consult patients/families on the prevention and treatment of nasal breathing disorders, modern surgical methods of treating diseases of the ear, throat, and nose; treatment of hard of hearing and deafness.</p>

Table 16

## Practical skills/competencies

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulations, medical procedures (if possible to determine)</b>
1	Examination of the external ear and tympanic membrane with a reflector and an otoscope	B	10 and more
2	Assessment of hearing acuity: spoken speech and whispered speech	B	10 and more
3	Removal of an uncomplicated foreign body from the ear, throat, nose	B	2 and more
4	Anterior rhinoscopy	B	10 and more
5	Pharyngoscopy with a reflector	B	10 and more
6	Determination of the respiratory and olfactory function of the nose	B	10 and more
7	Anterior tamponade of the nose	B	5 and more
8	Finger examination of the nasopharynx	B	5 and more
9	Direct laryngoscopy	B	10 and more
10	Rinsing lacunae of the palatine tonsils	B	5 and more
11	Taking a swab from the nose and throat for bacteriological and virological examination	B	5 and more
12	Conicotomy	D	from 1 (in the conditions training center)
13	Tracheotomy	D	from 1 (in the conditions training center)

**Course 9. NEUROLOGY**  
**Duration: 46 hours / 1.5 ECTS credits**

<b>Aim</b>	Master the basics of prevention, diagnosis, treatment and rehabilitation of patients of all age groups with the most frequent diseases of the nervous system	
<b>I Knowledge</b>		<b>II Skills</b>
<p>1. To know the syndromology and topical diagnosis of lesions of the nervous system in patients of various ages (pain of various localization; disorders of sensitivity, reflex-motor sphere, coordination and statics, speech disorders, autonomic and cognitive disorders, disturbance of consciousness).</p> <p>2. To know the classifications, diagnosis and principles of treatment, patient route, prevention of complications in vascular, infectious-inflammatory, demyelinating, degenerative diseases of the nervous system, myasthenia, epilepsy, injuries and neoplasms.</p> <p>3. Know the symptoms, examination algorithm, diagnosis and treatment of lesions of the peripheral nervous system (vertebral, non-vertebral, cranial nerve, demyelinating, traumatic).</p> <p>4. Know the algorithms for providing emergency aid in case of a seizure, loss of consciousness, acute cerebral blood flow disorder, trauma, neuroinfection.</p> <p>5. Know etiopathogenesis, clinical manifestations, examination algorithm, patient route, principles of treatment and rehabilitation of children with cerebral palsy, hereditary neuromuscular diseases.</p> <p>6. Know the clinical manifestations, pathogenesis, classification of nervous system lesions in general somatic diseases (cardiovascular, respiratory, endocrine) in patients of different age groups.</p> <p>7. To know the clinical pharmacology of drugs that are used to treat the most common diseases of the nervous system in patients of all age groups.</p>		<p>1. Be able to perform a neurological examination, tests for cognitive impairment and interpret their results in patients of all age groups.</p> <p>2. Be able to formulate syndromological/nosological diagnosis, make a management plan and determine the route of the patient with the most frequent vascular diseases of the nervous system (chronic ischemia of the brain, acute disorders of cerebral circulation).</p> <p>3. To be able to formulate a syndromological/nosological diagnosis, draw up a management plan and determine the route of a patient with infectious and inflammatory diseases (meningitis, meningoencephalitis, myelitis, poliomyelitis); demyelinating diseases (acute inflammatory demyelinating polyradiculoneuropathy, multiple sclerosis, optic neuritis); degenerative diseases (Parkinson's disease and parkinsonism; chorea (Huntington's, senile, benign hereditary, mala, etc.); myasthenia and myasthenic syndrome; epilepsy and epileptic syndromes.</p> <p>4. Be able to formulate a diagnosis, draw up a management and rehabilitation plan, determine the route of patients with injuries of the nervous system and their consequences.</p> <p>5. Be able to draw up an examination plan and route for a patient with a suspicion of a neoplasm of the nervous system.</p> <p>6. Be able to draw up an examination plan, determine the route of a patient with suspected cerebral palsy, hereditary neuromuscular diseases, congenital abnormalities of the nervous system.</p> <p>7. To be able to provide emergency aid and determine the patient's route in case of convulsions, disturbances of consciousness,</p>

	<p>injuries of the nervous system, neuroinfections, acute disorders of cerebral circulation.</p> <p>8. Be able to consult patients / families with chronic / progressive diseases of the nervous system, cognitive, motor disorders.</p> <p>9. To be able to prescribe and control the safety and effectiveness of the main groups of medicines used for treatment of the most frequent diseases of the nervous system in patients of various ages.</p>
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**Table 18****Practical skills/competencies**

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulations, medical procedures (if possible to determine)</b>
1	Research of the reflex-motor sphere	B	10 and more
2	Study of the function of cranial nerves	B	10 and more
3	Research of language, praxis, gnosis.	B	10 and more
4	Sensitivity studies	B	10 and more
5	Study of coordination of movements	B	10 and more
6	Study of meningeal symptoms	B	10 and more
7	Emergency care for: <ul style="list-style-type: none"> <li>- meningitis</li> <li>- loss/impairment of consciousness</li> <li>- acute violation of cerebral circulation</li> <li>- hyperthermia</li> <li>- convulsions</li> <li>- injury</li> </ul>	B	2 or more for each condition

**Table 19****Course 10. PSYCHOLOGICAL AND MENTAL HEALTH (psychiatry)****Duration: 37 hours / 1.25 ESTS credits**

<b>Aim</b>	Master the basics of diagnosis of psychological/mental disorders, psychoeducation and psychopharmacology	
<b>I Knowledge</b>		<b>II Skills</b>

<ol style="list-style-type: none"> <li>1. Know regulatory documents on mental health and medical and social security issues (orders, clinical guidelines, WHO program - mhGAP).</li> <li>2. Know the classification, algorithm for detection and treatment of behavioral disorders and mental functions in childhood and adolescence.</li> <li>3. Know the clinical manifestations, diagnosis, prevention and principles of treatment of neurasthenia, chronic fatigue syndrome, hyperactivity syndrome, psychosomatic disorders, sleep disorders, eating behavior, enuresis.</li> <li>4. Know clinical manifestations, diagnosis and principles of treatment and rehabilitation, route of patients with depressive and anxiety disorders, psychosis, bipolar disorder, acute stress disorder, PTSD; personality disorders (paranoid, schizoid, antisocial, obsessive-compulsive, etc.).</li> <li>5. To know the clinical manifestations, diagnosis, methods of treatment and rehabilitation of patients with dementia.</li> <li>6. Know the symptoms, diagnosis, principles of treatment and rehabilitation, route of patients with addictions.</li> <li>7. Know the clinic and emergency measures for patients with acute mental conditions (acute psychosis, manic episode, panic attack, suicide, withdrawal syndrome, aggressive behavior, delirium).</li> <li>8. Know the principles of psychoeducation and clinical pharmacology of drugs used in psychiatry.</li> </ol>	<ol style="list-style-type: none"> <li>1. Be able to consult patients with addictions, mental and psychological problems, determine the treatment plan and the patient's route.</li> <li>2. To be able to prescribe outpatient treatment treatment, to determine the route of a patient with neurasthenia, vegetative disorders, psychosomatic disorders, sleep disorders, nutrition, enuresis.</li> <li>3. Be able to diagnose depressive and anxiety disorders with the help of questionnaires, prescribe a treatment plan and determine the patient's route.</li> <li>4. Be able to identify patients with bipolar disorder, PTSD, personality disorders, conduct counseling with for examination and treatment, determine the patient's route.</li> <li>5. Be able to assess the cognitive sphere in patients of various ages, prescribe outpatient treatment and determine the route of a patient with cognitive disorders and dementia.</li> <li>6. Be able to conduct motivational counseling of patients with addictions.</li> <li>7. Understand how to be able to provide emergency care for acute mental conditions (acute psychosis, mania episode, panic attack, suicide, withdrawal syndrome, aggressive behavior, delirium).</li> <li>8. Be able to monitor the effectiveness and safety of the use of drugs for the treatment of mental disorders.</li> </ol>
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Table 20

**Practical skills/competencies**

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulation, medical procedures (if possible to determine)</b>
1	Counseling of patients with psychological and mental, behavioral disorders	C	2 or more for each state
2	The use of questionnaires for the diagnosis of anxiety and depressive states	B	5 and more
4	Emergency care for: - acute psychosis - delirium - abstinence syndrome - poisoning with narcotic substances, alcohol - a panic attack	B	2 or more for each state

**Course 11. INFECTIOUS DISEASES****Duration 32 hours / 1.05 ESTS credits**

<b>Aim</b>	Master the management of patients of all age groups with infectious diseases; understand the anti-epidemic protection system population and anti-epidemic measures in the focus of infection
<b>I Knowledge</b>	<b>II Skills</b>
<p>1. Know regulatory documents on the prevention of infectious diseases, anti-epidemic protection of the population and measures in the focus of infection, the use of individual protective equipment, organization of activities of the family medicine clinic in the conditions of the COVID-19 pandemic.</p> <p>2. Know the classification of infectious and parasitic diseases, the main methods of their diagnosis; main clinical syndromes (diarrhea, fever, jaundice, exanthema, lymphadenopathy, meningeal syndrome), differential diagnosis and outpatient treatment.</p> <p>3. To know the clinical manifestations, diagnosis, prevention and principles of treatment of measles, scarlet fever, rubella, chickenpox, enterovirus infections, poliomyelitis, diphtheria.</p> <p>4. Know the clinical manifestations, diagnosis and principles of treatment, route of patients with bacterial/viral meningitis/meningoencephalitis.</p> <p>5. Know the clinical manifestations, diagnosis, methods of treatment and prevention of viral hepatitis (A, B, C, D, E), leptospirosis.</p> <p>6. Know the clinical manifestations, diagnosis, methods of treatment and prevention of HIV infection; route of an HIV-positive patient; emergency prevention measures.</p> <p>7. Know the symptoms, diagnosis, prevention and treatment of the most common parasitic diseases (malaria, amebiasis, balantidiasis, toxoplasmosis, giardiasis) and helminthiasis (nematodes, trematodes, cestodosis)</p> <p>8. Know the symptoms, prevention, diagnosis and outpatient treatment of SARS, influenza, COVID-19, infectious mononucleosis.</p> <p>9. Know the symptoms, prevention,</p>	<p>1. To be able to draw up a plan and carry out the organization of anti-epidemic and quarantine measures in foci of infection, during epidemics and emergency situations.</p> <p>2. To be able to carry out diagnosis, differential diagnosis, outpatient treatment and determine the route of patients suspected of having an infectious disease, with fever, jaundice, rash, diarrhea, lymphadenopathy.</p> <p>3. To be able to carry out diagnostics, differential diagnostics, outpatient treatment of patients with helminthiasis, parasitic diseases, measles, scarlet fever, rubella, chicken pox, enterovirus infections, infectious mononucleosis, herpes infection, diphtheria.</p> <p>4. To be able to carry out prevention, diagnosis, draw up a treatment plan and control its effectiveness, and determine the route of a patient with viral hepatitis.</p> <p>5. To be able to conduct pre-test and post-test counseling of patients who are tested for HIV infection, draw up a management and treatment plan, determine the route of a patient with HIV-positive status.</p> <p>6. To be able to draw up a plan and organize the necessary measures of emergency prevention in case of possible infection of a medical worker with HIV at the workplace.</p> <p>7. Be able to plan and carry out observation, prevention, diagnosis and outpatient treatment of Lyme disease.</p> <p>8. Be able to draw up a plan of observation and outpatient treatment, organize outpatient monitoring of the condition of a patient with a positive PCR for SARS-Cov2.</p> <p>9. Be able to prescribe antibacterial, antiviral, antifungal, antiparasitic, anthelmintic medicines and monitor their effectiveness and safety.</p> <p>10. To be able to train the population on the prevention of infectious diseases, anti-epidemic and quarantine measures, the use of personal protective equipment, vaccination.</p>



<p>diagnosis and outpatient treatment of Lyme disease.</p> <p>10. Know the clinic and emergency measures for patients with hyperthermia, infectious-toxic shock, meningeal syndrome, diarrhea, vomiting.</p> <p>11. To know the classification, clinic, anti-epidemic measures, the basics of treatment and the route of a patient with particularly dangerous infections.</p> <p>12. To know the clinical pharmacology of antibacterial, antiviral, antifungal, anthelmintic, antiparasitic and other drugs used in the treatment of human infections.</p> <p>13. Know the types, classification, mechanism actions and features of the use of vaccines, in particular vaccines against SARS Cov-2.</p>	<p>11. To be able to conduct consultations on prevention of vaccine-controlled infections (vaccination) in all age groups, pregnant women and immunodeficient patients.</p>
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Table 22

## Practical skills/competencies

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulation, medical procedures (if possible to determine)</b>
1	Taking material (blood, feces, urine, bile, washings-imprints of the mucous membrane of the nasopharynx, etc.) for bacteriological and virological studies	B	5 and more
2	Collection of material for bacteriological examination in cases of tonsillitis of various etiologies	B	5 and more
3	Conducting express tests for various infectious diseases	B	10 and more
4	Draw up medical documentation (inpatient card, emergency report, extract from medical history, etc.)	B	10 and more
5	Draw up a plan of preventive and quarantine measures for the most common and particularly dangerous infectious diseases	B	5 and more



**Course 12. PULMONOLOGY, PHTHISIATRY****Duration 38 hours / 1.25 ESTS credits**

<b>Aim</b>	Master the outpatient management of patients of all age groups with tuberculosis
<b>I Knowledge</b>	<b>II Skills</b>
<ol style="list-style-type: none"> <li>1. Know the legal framework and medical-technological documents on tuberculosis infection control in Ukraine; international and national strategy for the fight against tuberculosis.</li> <li>2. Know the epidemiological situation, etiopathogenesis, pathomorphosis of tuberculosis, risk groups.</li> <li>3. Know the peculiarities of the course of combined infections (HIV and TB, hepatitis and TB); a system for diagnosing tuberculosis, selecting patients for examination, maintaining medical documentation and electronic forms; formulation of the diagnosis.</li> <li>4. Know the diagnosis of latent tuberculosis infection, diagnosis and differential diagnosis of tuberculosis of the lungs, respiratory organs, and other organs in adults and children.</li> <li>5. Know the rules of infection control at the level of PMD, vaccine and chemoprophylaxis of TB.</li> <li>6. Know the rules of care for a child born to a mother with tuberculosis.</li> <li>7. Know the organizational and anti-infection work in the focus of tuberculosis infection, case definition, classification.</li> <li>8. To know outpatient models of treatment of tuberculosis patients, documentation management, preventive measures and training of the population and medical workers.</li> <li>9. Know the algorithms for managing patients who are treated on an outpatient basis; patients who interrupted treatment; pregnant, HIV-infected, with concomitant diseases; children and teenagers.</li> <li>10. Know the general principles of treatment TV, chemoresistant TV, monitoring of effectiveness and adverse events.</li> </ol>	<ol style="list-style-type: none"> <li>1. Be able to conduct examinations, counseling and determine the route of patients with suspicion of TV.</li> <li>2. To be able to organize training of the population, medical workers, anti-infection measures in outpatient clinics and in the focus of tuberculosis infection.</li> <li>3. To be able to consult patients of different age groups and with comorbid conditions and infections, pregnant women regarding the diagnosis and treatment of TV and determine the route of patients.</li> <li>4. Be able to monitor the effectiveness and safety of anti-tuberculosis therapy at the PMD level, determine the route of patients.</li> </ol>

**Table 24****Practical skills/competencies**

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulation, medical procedures (if possible to determine)</b>
1	Taking sputum for analysis	A	2 and more
2	Quantiferon test	B	2 and more
3	Documentation management	B	2 and more

**Table 25****Course 13. DERMATOVENEROLOGY****Duration 32 hours / 1.05 ESTS credits**

<b>Aim</b>	Master outpatient management of patients of all ages groups with skin, hair, nail problems, venereal diseases	
<b>I Knowledge</b>		<b>II Skills</b>
<p>1. To know the anatomy and physiology of the skin and its appendages in people of different ages and with pathology.</p> <p>2. Know the differential diagnosis of skin rash (erythematous, hemorrhagic, vesiculo-bullous), skin itching, pigmentation disorders.</p> <p>3. Know the diagnosis, principles of treatment and route of a patient with chronic skin diseases (psoriasis, eczema, dermatitis, atopic dermatitis).</p> <p>4. To know the differential diagnosis, outpatient treatment, the route of a patient with infectious and parasitic skin diseases (pyoderma, acne, rosacea, furuncle, carbuncle, fistula; impetigo; dermatitis).</p> <p>5. Know the differential diagnosis, outpatient treatment and route of a patient with neoplasms of the skin and subcutaneous tissue (molluscum, milia, acrochondrosis, papilloma, corn, callus, seborrheic keratosis, lipoma, hemangioma and others).</p> <p>6. Know the differential diagnosis, risk factors, prevention, principles of treatment,</p>		<p>1. Be able to conduct a complete examination of the skin and its appendages and interpret the results in patients of all age groups, determine the area of the lesion.</p> <p>2. Be able to consult patients with skin rash, skin itching, neoplasms of the skin and subcutaneous tissue, pigmentation disorders, hair and nail problems, determine the examination plan and route of the patient, prescribe outpatient treatment.</p> <p>3. Be able to consult patients with suspected/venereal disease, prescribe emergency prophylaxis, determine the patient's route and keep the necessary documentation.</p> <p>4. Be able to consult patients with infectious skin diseases, prescribe outpatient treatment and monitor its safety and effectiveness.</p> <p>5. Be able to consult patients with precancerous and oncological skin diseases, determine the patient's route.</p>

<p>route of a patient with precancerous conditions (keratoacanthoma, melanoma in situ).</p> <p>7. Know the differential diagnosis, risk factors, prevention, principles of treatment of malignant melanoma.</p> <p>8. Know the differential diagnosis, principles of treatment, route of patients with hair and nail problems.</p> <p>9. Know normative documents on the prevention of venereal diseases, classification, prevention and outpatient treatment, route of a patient with a venereal disease.</p> <p>10. Know modern medicinal and non-medicinal means used for the treatment of dermatological diseases, diseases of nails and hair.</p>	
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### Practical skills/competencies

**Table 26**

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulation, medical procedures (if possible to determine)</b>
1	Evaluation of the affected skin area	B	2 and more
2	Examination of the skin	B	10 and more
3	Diascopy, palpation, scraping (grattage)	B	10 and more
4	The method of applying bandages, lotions, dermatological compresses, pastes, shaking mixtures, plasters, varnishes, aerosols.	A	5 and more

Table 27

**Course 14. EMERGENCY AND INITIAL MEDICAL AID**  
**PATIENT STABILIZATION**

**Duration 38 hours / 1.25 ESTS credits**

<b>Aim</b>	Master the provision of emergency medical care to patients of all age groups	
<b>I Knowledge</b>		<b>II Skills</b>
1. Know the definitions and symptoms of terminal conditions, sudden death, clinical death, shock states and poisoning. 2. Know the algorithms for providing emergency medical care and initial stabilization of a patient in case of cardiac arrest, respiratory arrest, sudden coronary death; acute heart/respiratory failure, mechanical asphyxia, drowning, electric shock, sun and heat stroke, various types of shock, coma, impaired consciousness, acute poisoning, bleeding. 3. To know the methods of performing cardiac resuscitation, restoring patency of the upper respiratory tract, carrying out tracheal intubation, using a laryngeal mask, auxiliary lung ventilation; vascular access, anti-shock measures. 4. To know clinical pharmacology and features of the use of drugs used in emergency care, routes of administration, features of infusion therapy for shocks. 5. To know the basics of medical sorting of victims and wounded. 6. Know the principles of ventilator operation.		1. To be able to provide emergency care for major emergencies, shock, comatose states, poisoning, bleeding to patients of different age groups. 2. To be able to carry out medical triage of the wounded and victims. 3. Be able to organize assistance at the scene of an accident.

Table 28

**Practical skills/competencies**

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulation, medical procedures (if possible to determine)</b>
1	Methods of restoring patency of the upper respiratory tract	B	5 and more

2	Tracheal intubation	C	2 and more
3	Use of a laryngeal mask	C	5 or more (including in training conditions center)
4	Use of an S-shaped laryngeal tube	B	5 or more (including in training conditions center)
5	Defibrillation	B	5 or more (including in training conditions center)
6	Cardiopulmonary resuscitation of children and adults	B	5 or more (including in training conditions center)
7	Conicotomy	C	5 or more (including in training conditions center)
8	Tracheotomy	C	2 or more (including in training conditions center)
9	Emergency care for:		
	Collapse	B	2 and more
	different forms of shock	B	2 and more
	comatose states	B	2 and more
	acute poisonings	B	2 and more
	electric shock, lightning	B	2 and more
	burns and frostbite	B	2 and more
	bites of snakes, insects, animals	B	2 and more
	drowning and suffocation	B	2 and more
	bleeding	B	2 and more
	thromboembolism of the pulmonary artery and main arteries of the limbs	B	1 and more
	acute renal failure	C	1 and more
	acute liver failure	C	1 and more
	convulsions	B	1 and more
	injuries	B	1 and more

Table 29

**Course 15. ANESTHESIOLOGY AND CPR****Duration 60 hours / 2 ECTS credits**

<b>Aim</b>	During their training, trainees should acquire clinical knowledge of medical and surgical skills in the management of critically ill patients and acquire and master clinical skills and skills to perform anesthesia and resuscitation procedures in a proper and safe manner	
<b>I Knowledge</b>		<b>II Skills</b>
1. Know aspects of monitoring and working with equipment, including respiratory therapy and hemofiltration. 2. Know and use the appropriate criteria for the severity of life-threatening conditions. 3. To know the methods of performing cardiac resuscitation, restoring patency of the upper respiratory tract, carrying out tracheal intubation, using a laryngeal mask, auxiliary lung ventilation; vascular accesses, anti-shock measures. 4. Know clinical pharmacology and features of the use of drugs used in emergency care, routes of administration, features of infusion shock therapy. 5. To know the basics of medical sorting of victims and wounded. 6. Know the principles of ventilator operation 7. Basic and specific skills in general and regional anesthesia in planned and emergency situations, vascular accesses, especially when establishing central venous and arterial lines.		1. To be able to provide emergency care for major emergencies, shock, comatose states, poisoning, bleeding to patients of different age groups. 2. Treat patients in the intensive care unit. 3. Be able to outline the basic principles of medical care, including pediatric patients; understand medical and surgical disorders that require specific treatment in the intensive care unit and issues related to the transfer of patients for specialized care, for example, to cardiac surgical hospitals, ECMO centers, etc.

Table 30

**Practical skills/competencies**

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulation, medical procedures (if possible to determine)</b>

1	Examination of the patient before anesthesia and prescribing drugs for premedication	B	5 and more
2	Venipuncture and installation of an intravenous drip	B	5 and more
3	Laryngoscopy and endotracheal intubation	C	10 and more
4	Lumbar puncture, spinal anesthesia	C	5 and more
5	Observation of the patient during anesthesia and in the postoperative period	B	10 and more
6	Entering anesthesia records	B	10 and more
7	Conducting cardiopulmonary resuscitation, including recognition of cardiac arrest	B	10 and more
8	Anesthesia for minor and major surgical interventions	B	10 and more
9	Counseling on different types of anesthesia	B	10 and more
10	Identification of complications of the postoperative period and assistance in their treatment	B	10 and more

**Table 31****Course 16. PHYSICAL AND REHABILITATION MEDICINE****Duration 72 hours / 2.4 ESTS credits**

<b>Aim</b>	Master the provision of rehabilitation care to patients of all age groups		
<b>I Knowledge</b>		<b>II Skills</b>	
1. Know the problems associated with the violation of the structure and functions, limiting the patient's activity and participation, the influence of contextual factors. 2. To know the work of a doctor of physical and rehabilitation medicine (FRM) in a multidisciplinary rehabilitation team, as a member or manager. 3. Know the program of rehabilitation interventions, formulate goals, design, discuss and explain the program of interventions or components of an individual rehabilitation program based on evidence-based practices. 4. Know rehabilitation management to ensure improvement of health status.		1. To be able, in accordance with the International Classification of Functioning, Limitation of Life and Health (ICF), to identify problems related to the violation of structure and functions, limitation of the patient's activity and participation, the influence of contextual factors. 2. Be able to work in a multidisciplinary rehabilitation team as a team member. 3. Be able to evaluate the results of the application of rehabilitation management, control the duration and intensity of therapeutic measures to ensure their compliance with the state of health, functional capabilities of the patient and the goals of physical rehabilitation.	

5. Know the methods of rehabilitation interventions for people of different ages, nosological and professional groups with complex progressive and multisystem disorders.	
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**Table 32****Practical skills/competencies**

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulation, medical procedures (if possible to determine)</b>
1	Assessment of functioning, functional independence and activities of daily living.	B	5
2	Anthropometry: determination of the degree of fat deposits, body fat mass, length of the body (sitting and standing) and limbs, body weight, chest circumference and its excursion, vital capacity of the lungs (spirometry).	B	5
3	Study of walking according to kinematic parameters of space	C	2
4	Assessment of mental status (Montreal scale of assessment of cognitive functions (MoSA), Mini - Mental State Examination (MMSE))	B	5
5	Assessment and interpretation of the results of instrumental and laboratory methods of musculoskeletal research: X-ray, MRI, computed tomography, ultrasound. Be able to determine indications and contraindications to assign methods.	C	5
6	The ability to identify problems related to the violation of structure and functions, limitation of the patient's activity and participation, the influence of contextual factors.	C	5
7	Ability to work in a multidisciplinary rehabilitation team as a team member	A	5



8	The ability to evaluate the results obtained during the examination and establish a clinical and rehabilitation diagnosis of the patient according to the ICF.	A	2
9	The ability to evaluate the results of the application of rehabilitation management, control the duration and intensity of therapeutic measures to ensure their appropriateness to the condition health.	B	5

**Table 33****Course 17. FORENSIC MEDICINE AND TOXICOLOGY****Duration 30 hours / 1 ESTS credit**

<b>Aim</b>	To master the skills of ascertaining the fact of the occurrence of death, differential diagnosis of injuries due to the action of various factors of the external environment, illegal actions regarding the health of a person, keeping appropriate medical and legal documentation in compliance with the basics international medical law	
<b>I Knowledge</b>		<b>II Skills</b>
1. To know the peculiarities of the development of early and late cadaveric changes. 2. Know the morphological features of bodily injuries caused by blunt, sharp objects, firearms, various physical factors (mechanical asphyxia, extreme temperatures, technical and atmospheric electricity, changed barometric pressure, ionizing radiation). 3. To know the peculiarities of the action of various chemical agents on the human body. 4. Know the algorithm for determining the age of a person; peculiarities of examination of the person in cases of sexual violence. 5. Know the peculiarities of documentation and certification in cases of various injuries. 6. To know the basics of work in cases of emergencies and mass disasters. 7. Know ethical and deontological norms of professional activity, bioethics and international medical law.		1. To be able to determine the stages of development of the absolute early signs of death and late cadaveric changes, ascertain the fact of the onset of death and determine the age of its onset. 2. To be able to differentiate bodily injuries depending on the action of the traumatic factor, to assess the danger to life at the time of their occurrence. 3. To be able to carry out differential diagnosis in the case of poisoning by various chemical factors and assess health disorders. 4. To be able to certify medico-legal cases in case of coming of age and in case of sexual violence. 5. Be able to certify injuries and fill out relevant medical documentation in accordance with current regulatory documents. 6. Be able to work in a multidisciplinary team in cases of emergencies and mass disasters. 7. Be able to communicate and cooperate with the police and relevant health departments within the limits professional competence.

**Table 34****Practical skills/competencies**

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulation, medical procedures (if possible to determine)</b>
1	Documentation and certification of injuries	B	10 and more
2	Declaration of death	B	5 and more
3	Keeping legal documentation in case of emergencies	B	1 and more
4	Certification of medical and legal cases (estimation of age, sexual violence etc.)	B	5 and more
5	Establishing contact in medico-legal cases with the police, relevant security departments health etc	B	5 and more

**Table 35**

**Course 18. PUBLIC HEALTH**  
**Duration 90 hours / 3 ECTS credits**

<b>Aim</b>	Master strategic planning and implementation of new mechanisms, management tools, methods of working with people in the context of crisis management in the public health system.	
<b>I Knowledge</b>		<b>II Skills</b>
1. Know the main demographic and epidemiological indicators, the meaning and trends of changes in the main determinants that affect health in terms of different population groups in Ukraine, the European region and the world, apply the main concepts and concepts of epidemiology and statistics in planning, implementation and interpretation research results 2. Know the main risks and plan appropriate actions in case of emergencies in the field of public health. 3. Know the method of conducting economic analysis of the effectiveness of developed procedures, interventions,		1. Be able to determine public health priorities, assess health care needs, propose scientifically based measures, and develop relevant conclusions and strategies. 2. To be able to formulate conclusions, develop forecasts and analyze the impact of various determinants on the health of the population, determine the health needs of various population groups, based on information obtained from epidemiological surveillance systems. 3. To be able to define and apply basic principles and approaches regarding prevention and control of physical,

<p>strategies and policies in the field of public health.</p> <p>4. To know management functions and the organization of service provision in the field of public health.</p> <p>5. To know the organization of control over the quality of provided services in the field of public health at the appropriate level.</p> <p>6. Know modern mechanisms of design, development, implementation and support of software and information systems using modern programming languages, standards and technologies (desktop, mobile, web).</p> <p>7. Know screening programs in general medical practice, national and international standards, the main directions of implementation in the current system of ensuring the quality of medical care.</p> <p>8. Know the theoretical foundations of personnel management of the organization.</p> <p>9. Know the problems of AIDS, viral hepatitis, tuberculosis and domestic violence.</p> <p>10. Know the features of the main groups of drugs used to treat patients with the most common non-infectious diseases.</p>	<p>chemical, biological, radiation and nuclear threats to public health and safety.</p> <p>4. To be able to identify and analyze risks related to the impact on health population determinants of the environment (physical, radiation, chemical, biological and industrial) and organize appropriate measures aimed at protecting the health of the population.</p> <p>5. Be able to develop measures for the prevention of (primary, secondary and tertiary) diseases and promote their implementation in practice.</p> <p>6. Be able to monitor and provide evaluation, data quality, data use and public health information.</p> <p>7. To be able to use management culture as a component of management.</p> <p>8. To be able to organize emergency medical assistance to the population in case of emergencies.</p> <p>9. To be able to apply the organizational and legal principles of the legislation of Ukraine regarding the prevention and counteraction of domestic violence.</p> <p>10. Be able to apply the main groups of drugs used to treat patients with the most common non-infectious diseases.</p>
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**Table 36****Practical skills/competencies**

<b>№</b>	<b>List of practical skills/competencies</b>	<b>Mastery level</b>	<b>Mandatory number of manipulation, medical procedures (if possible to determine)</b>
1.	Apply the basics of strategic planning in the field of health care. The mechanism of implementation of state policy with management of the healthcare system in Ukraine. Decentralization of management medical institutions.	B	5 and more

2.	Use international medical and social rules. Apply International Convention on Quarantine Diseases. Organization of preventive and anti-epidemic measures at the level community Organization of preventive and anti-epidemic measures in the institution health care.	B	5 and more
3.	Organize the management apparatus as a component part of the system. Use development technology and making a management decision.	B	5 and more
4.	Be able to monitor and provide evaluation, data quality, data usage and public health information.	B	5 and more
5.	Know the system of human rights in the field health care.	B	5 and more
6.	Implement the organization's quality management system. National and international standards Main directions implementation into the current system of ensuring the quality of medical care.	B	5 and more
7.	To implement the theoretical foundations of personnel management of the organization.	B	5 and more
8.	Use management culture as a component of management.	B	5 and more
9.	Organization of examination of temporary incapacity for work in health care facilities, palliative and hospice care.	B	5 and more
10.	Identify the problems of AIDS and viral hepatitis.	B	5 and more
11.	Identify the problems of tuberculosis.	B	5 and more
12.	To organize emergency medical assistance to the population in case of emergencies.	B	5 and more
13.	Implement organizational and legal issues in the work of medical institutions in emergency situations, including combat operations.	B	5 and more
14.	Management of the quality of medical care as a mechanism for increasing its efficiency. State quality management tools	B	5 and more

	medical assistance (emergency medical assistance). Logistics of emergency medical assistance to the population.		
15.	Implement the issue of rehabilitation in health care institutions: legal, organizational aspects, etc.	B	5 and more

**Table 37**

<b>Course 19</b>	<b>COURSE OF CHOICE</b> . 19.1. Instrumental methods of examination of a surgical patient in general medical practice . 19.2. Instrumental diagnosis of a therapeutic patient in general practice (ECG, ultrasound, diagnosis of the most common syndromes) . 19.3. Emergencies in children in general practice (diagnosis of "red flags", emergency care) <b>Duration: 144 hours / 4.8 ECTS credits</b>
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**VII. LIST OF PRACTICAL SKILLS AND SKILLS,  
which should be possessed by a person who has passed the specialization program  
"General medical practice"**

**Table 1**

<b>№</b>	<b>List of practical skills/competencies for mastering the sections of the program</b>	<b>Mastery level</b>	<b>Mandatory number of manipulations, medical procedures (for definition possibilities)</b>
<b>1</b>	<b>Adult health</b>		
1	Draw up a plan and conduct training and counseling of patients with the most common chronic non-infectious diseases and risk factors for their development (training in managed self-management of bronchial asthma, diabetes school, training of patients with CHF, risk factors of cardiovascular diseases); on prevention of vaccine-controlled infections; pre-test and post-test counseling to determine HIV-infections); counseling of persons with intellectual disabilities.	B	2 or more from each NCD

2	Coding according to ICPC classifications, ICD-10 and maintaining electronic forms	B	100-200
3	Conduct motivational counseling to support a healthy lifestyle, refusal of smoking, healthy eating, physical activity	B	100 and more
4	<p>Interpretation of the results of laboratory and instrumental research methods in adults:</p> <ul style="list-style-type: none"> <li>- general blood analysis;</li> <li>- biochemical indicators of blood;</li> <li>- acute-phase indicators of inflammation;</li> <li>- lipidograms;</li> <li>- blood clotting system;</li> <li>- tests to detect diabetes;</li> <li>- SARS-Cov-2 detection tests;</li> </ul> <ul style="list-style-type: none"> <li>- general analysis of urine;</li> <li>- sputum;</li> <li>- poop, co-programs;</li> <li>- gastric secretions;</li> <li>- duodenal contents;</li> <li>- biological fluids of the pericardium, pleura, abdominal cavity;</li> <li>- cytological;</li> <li>- secretions of female and male genital organs;</li> <li>- hormones;</li> <li>- serological;</li> <li>- immunological;</li> <li>- allergy tests;</li> <li>- X-ray;</li> <li>- endoscopy;</li> <li>- electrocardiography;</li> <li>- ultrasound (including echocardiography);</li> <li>- tests with dosed physical activity (cycle ergometry, treadmill);</li> <li>- Holter ECG and blood pressure monitoring;</li> <li>- functions of external breathing;</li> <li>- blood gases and acid-base balance</li> </ul>	B	100 and more in total

5	Measurement of blood pressure on the upper and lower limbs	A	100 and more
6	Recording and interpretation of ECG in adults	A	50-100
7	The method of conducting and evaluating the results of the test with a 6-minute walk	B	50 and more
8	Use of inhalers and nebulizers	A	40 and more
9	Pulse oximetry	A	100 and more
10	Peak flowmetry	A	40 and more
11	Conducting and interpreting the results of rapid tests, in particular for SARS-Cov2, troponin level; determination of blood glucose with a glucometer; urine ketones and glucose and others	A	50-100
12	Emergency care for:		
	- acute coronary syndrome	B	10 and more
	- broncho-obstructive syndrome	B	20 and more
	- acute heart rhythm disturbances	B	20 and more
	- hypertensive crises	B	25 and more
	- allergic reactions	B	10 and more
	- hyperthermia	B	20 and more
	- hypo-/ hyperglycemia	B	10 and more
	- thyrotoxic crisis	B	1 and more
	- spontaneous pneumothorax	B	1 and more
	- pulmonary edema	B	3 and more
	- thromboembolism of LA and main arteries of limbs	B	1 and more
	- acute kidney injury	C	1 and more
	- acute liver failure	C	1 and more
	- acute adrenal insufficiency	B	3 and more
	- renal, biliary colic	B	5 and more
13	Methods of restoring patency of the upper respiratory tract	A	10 and more
14	Tracheal intubation	B	1 and more (including in training conditions center)
15	Use of a laryngeal mask	B	2 and more (including in training conditions center)
16	Use of an S-shaped laryngeal tube	B	2 and more (including in training conditions center)

17	Defibrillation	D	2 and more (including in training conditions center)
18	Cardiopulmonary resuscitation of adults	D	5 and more (including in training conditions center)
19	Conicotomy	B	1 and more (including in training conditions center)
20	Tracheotomy	B	from 1 (including in training conditions center)
<b>2</b>	<b>Children's health</b>		
1	<p>Interpretation of the results of laboratory and instrumental research methods in children:</p> <ul style="list-style-type: none"> <li>- general blood analysis;</li> <li>- biochemical indicators of blood;</li> <li>- - blood clotting system;</li> <li>- tests to detect diabetes;</li> <li>- SARS-Cov-2 detection tests;</li> <li>- general urine analysis, urine analysis according to Nechiporenko, Zimnytskyi;</li> <li>- sputum, smear-imprint of the nasal mucosa;</li> <li>- poop, co-programs;</li> <li>- gastric secretions;</li> <li>- duodenal contents;</li> <li>- biological fluids of the pericardium, pleura, abdominal cavity;</li> <li>- cytological;</li> <li>- hormones;</li> <li>- serological;</li> <li>- immunological;</li> <li>- allergy tests;</li> <li>- X-ray;</li> <li>- endoscopy;</li> <li>- ultrasonic;</li> <li>- functions of external breathing;</li> <li>- results of bacteriological and virological cultures</li> <li>- blood gases and acid-base balance.</li> </ul>	B	Each time when analyzing a clinical case (from 100 or more for each type of research)



2	Measurement of blood pressure on the upper and lower extremities using a set of cuffs for children	A	50 and more
3	Recording and decoding of ECG in children	A	30 and more
4	Use of inhalers and nebulizers	A	20 and more
5	Pulse oximetry	A	20 and more
6	Peak flowmetry	A	20 and more
7	Conducting and interpreting the results of rapid tests, in particular for SARS-Cov2; determination of glycemia glucometer; urine ketones and glucose and others	A	25 and more
8	Prescribe rational nutrition taking into account the type of feeding (natural, artificial, mixed) for children of the 1st year of life	A	50 and more
9	Care of the umbilical cord, skin condition of the newborn	A	50 and more
10	The technique of early application to the chest of a newborn	A	50 and more
11	Evaluation of the effectiveness of sucking a newborn	A	50 and more
12	Conducting skin-to-skin contact	A	10 and more
13	Assessment of physical and psycho-emotional development of the infant	B	50 and more
14	Assessment of physical and mental development of a child from 1 year to 3 years	B	50 and more
15	Definition of symptoms of Ortolani, Barlow for detection hip dysplasia	B	50 and more
16	Vaccination calendar in Ukraine. Drawing up an individual plan of vaccinations for a child who is vaccinated with a violation of the vaccination calendar	A	50 and more
17	Methods of restoring patency of the upper respiratory tract	A	10 and more
18	Tracheal intubation	B	1 and more (including in training conditions center)

19	Use of a laryngeal mask	B	2 and more (including in training conditions center)
20	Use of an S-shaped laryngeal tube	B	1 and more (including in training conditions center)
21	Defibrillation	B	2 and more (including in training conditions center)
22	Cardiopulmonary resuscitation of newborns and children	B	2 and more (including in training conditions center)
<b>3</b>	<b>Women's health</b>		
1	Interpretation of the results of the main laboratory and instrumental methods of examination in pregnant women	B	50 and more
2	Interpretation of the results of female genital secretions	B	25 and more
3	Make a plan for maintaining a physiological pregnancy	B	10 and more
4	Performing an express pregnancy test	A	10 and more
5	Measurement of the standing height of the bottom of the uterus, the circumference of the abdomen	B	10 and more
6	Determination of the term of pregnancy and the term of delivery by the dates of the last menstruation and the first movement of the fetus	B	10 and more
7	Assessment of the condition of the fetus (auscultation of the heartbeat, conducting a gravigram)	B	10 and more
8	Gynecological examination. Bimanual examination	B	10 and more
9	Gynecological examination using mirrors	B	10 and more
10	Taking material from the vagina for bacteriological examination	B	20 and more
11	Collection of material from the cervix for cytological examination	B	20 and more
12	Inspection and palpation examination mammary gland	A	20 and more
13	Family planning counseling	B	10 and more

14	Appointment of various methods of contraception	B	10 and more
15	Consulting on the prevention of infections, which transmitted sexually	B	10 and more
<b>4</b>	<b>Men's health</b>		
1	Interpretation of the results of male genital secretions	B	10 and more
2	Finger examination of the prostate	B	10 and more
3	Catheterization of the urinary bladder with an elastic catheter in adults and children	B	5 or more (including in training conditions center)
<b>5</b>	<b>Management of surgical patients problems</b>		
1	Primary surgical treatment of wounds	B	20 and more
2	Care and treatment of bedsores, trophic ulcers	B	10 and more
3	Treatment of the burn surface	B	10 and more
4	Applying and removing stitches	B	10 and more
5	Opening of superficial skin abscesses and subcutaneous tissues	B	10 and more
6	Stopping external bleeding (applying a tourniquet, a tight bandage, squeezing the arteries)	B	10 and more
7	Administration of local anesthesia (infiltration, conduction and novocaine blockades)	B	5 and more
8	Gastric lavage	B	10 and more
9	Digital examination of the rectum	B	10 and more
<b>6</b>	<b>Injuries and developmental disorders</b>		
1	Transport immobilization	B	5 and more
2	Putting on a neck collar	B	5 and more
<b>7</b>	<b>Ophthalmology</b>		
1	External examination of the eyelids and conjunctiva	B	20 and more
2	Determination of visual acuity using optical tables	B	20 and more
3	Determination of the field of vision using a set of lenses	B	20 and more
4	Definition of color perception	B	20 and more
5	Measurement and assessment of intraocular pressure by palpation method and method tonometry, including transpalpebral	B	20 and more
6	Examination of the fundus by direct ophthalmoscopy	B	20 and more

7	Therapeutic manipulations: - washing of the conjunctival cavity and cornea - sprinkling drops and laying ointment in conjunctival sac - removal of superficial foreign bodies from the conjunctiva	B  B  B	10 and more  20 and more  10 and more
<b>8</b>	<b>Otorhinolaryngology</b>		
1	Examination of the external ear and tympanic membrane with a reflector and an otoscope	B	20 and more
2	Assessment of hearing acuity: spoken speech and whispered speech	B	20 and more
3	Removal of an uncomplicated foreign body from the ear, throat, nose	B	10 and more
4	Anterior rhinoscopy	B	20 and more
5	Pharyngoscopy with a reflector	B	20 and more
6	Determination of the respiratory and olfactory function of the nose	B	20 and more
7	Anterior tamponade of the nose	B	10 and more
8	Finger examination of the nasopharynx	B	10 and more
9	Direct laryngoscopy	B	20 and more
10	Rinsing lacunae of the palatine tonsils	B	10 and more
11	Taking a smear from the nose and throat for bacteriological and virological research	B	20 and more
12	Conicotomy	D	from 1 (in the conditions of the training center)
13	Tracheotomy	D	from 1 (in the conditions of the training center)
<b>9</b>	<b>Neurology</b>		
1	Study of reflex-motor spheres	C	50 and more
2	Study of the function of cranial nerves	C	50 and more
3	Research of language, praxis, gnosis.	C	50 and more
4	Sensitivity studies	C	50 and more
5	Study of coordination of movements	C	50 and more
6	Study of meningeal symptoms	C	50 and more

7	Emergency care for: - meningitis - loss/impairment of consciousness - acute violation of cerebral circulation - hyperthermia - convulsions - injury	C	50 and more
<b>10</b>	<b>Psychological and mental health (psychiatry)</b>		
1	Counseling of patients with psychological and mental, behavioral disorders	C	10 or more for each condition
2	Application of questionnaires for diagnosis of anxiety and depressive states	B	20 and more
3	Maintenance of accounting and reporting documentation and electronic forms	B	20 and more
4	Emergency care for: - acute psychosis - delirium - abstinence syndrome - poisoning with narcotic substances, alcohol - a panic attack	B	5 or more for each condition
<b>11</b>	<b>Infectious diseases</b>		
1	Taking material (blood, feces, urine, bile, washings-imprints of the mucous membrane of the nasopharynx, etc.) for bacteriological and virological studies	B	5 and more
2	Collection of material for bacteriological studies in angina of various etiologies	B	5 and more
3	Carrying out express tests on various infectious diseases	B	10 and more
4	Draw up medical documentation (history diseases, emergency message, statistical coupon, physical receipt, etc.)	B	10 and more
5	Draw up a plan of preventive and quarantine measures for the most common and particularly dangerous infectious diseases	B	10 and more
<b>12</b>	<b>Pulmonology, phthisiology</b>		
1	Taking sputum for analysis	A	20 and more

2	Conducting and evaluating the Quantiferon test	B	20 and more
3	Documentation management	B	20 and more
<b>13</b>	<b>Dermatovenereology</b>		
1	Evaluation of the affected skin area	B	10 and more
2	Examination of the skin	B	10 and more
3	Diascopy, palpation, scraping (grattage)	B	10 and more
4	The method of applying bandages, lotions, dermatological compresses, pastes, shakers mixtures, plasters, varnishes, aerosols	A	5 and more
<b>14</b>	<b>Pre-hospital emergency care and initial stabilization of the patient</b>		
1	Methods of restoring patency of the upper respiratory tract	B	10 and more
2	Tracheal intubation	C	10 or more (including in the conditions of the training center)
3	Use of a laryngeal mask	C	10 or more (including in the conditions of the training center)
4	Use of an S-shaped laryngeal tube	B	10 or more (including in the conditions of the training center)
5	Defibrillation	B	10 or more (including in the conditions of the training center)
6	Cardiopulmonary resuscitation of children and adults	B	10 or more (including in the conditions of the training center)
7	Conicotomy	C	2 or more (including in the conditions of the training center)
8	Tracheotomy	C	2 or more (including in the conditions of the training center)
9	Emergency care for:		

	Collapse	B	5 and more
	different forms of shock	B	2 and more
	comatose states	B	5 and more
	acute poisonings	B	5 and more
	electric shock, lightning	B	2 and more
	burns and frostbite	B	5 and more
	bites of snakes, insects, animals	B	5 and more
	drowning and suffocation	B	1 and more
	bleeding	B	2 and more
	thromboembolism of the pulmonary artery and main arteries of the limbs	B	2 and more
	acute renal failure	C	1 and more
	acute liver failure	C	1 and more
	convulsions	B	2 and more
	injuries	B	2 and more
<b>15</b>	<b>Anesthesiology and resuscitation</b>		
1	Examination of the patient before anesthesia and prescription of drugs for premedication	B	5 and more
2	Venipuncture and installation of an intravenous drip	B	5 and more
3	Laryngoscopy and endotracheal intubation	C	10 and more
4	Lumbar puncture, spinal anesthesia	C	5 and more
5	Observation of the patient during anesthesia and in the postoperative period	B	10 and more
6	Entering anesthesia records	B	10 and more
7	Conducting cardiopulmonary resuscitation, including recognition of cardiac arrest	B	10 and more
8	Anesthesia for minor and major surgical interventions	B	10 and more
9	Counseling on different types of anesthesia	B	10 and more
10	Identification of complications of the postoperative period and help in their treatment	B	10 and more
<b>16</b>	<b>Physical and rehabilitation medicine</b>		
1	Assessment of functioning, functional independence and activities of daily life.	B	5 and more

2	Anthropometry: determination of the degree of fat deposits, body fat mass, length of the body (sitting and standing) and limbs, body weight, chest circumference and its excursion, vital capacity of the lungs (spirometry).	B	5 and more
3	Study of walking according to kinematic parameters of space	C	2 and more
4	Methods of prescribing therapeutic exercises	B	5 and more
5	Assessment and interpretation of the results of instrumental and laboratory methods of research of the locomotor system: X-ray, MRI, computer tomography, ultrasound. Be able to determine the indications and contraindications for prescribing methods.	C	5 and more
6	The ability, in accordance with the ICD, to determine problems associated with a violation of the structure and functions, limitation of the patient's activity and participation, the influence of contextual factors	C	5 and more
7	Ability to work in multidisciplinary rehabilitation team as a member or leader	A	5 and more
8	The ability to evaluate the results obtained during the examination and establish a clinical and rehabilitation diagnosis of the patient in accordance with the ICD.	A	2 and more
9	The ability to evaluate the results of the application of rehabilitation management, control the duration and intensity of therapeutic measures to ensure their compliance with the state of health.	B	5 and more
<b>17</b>	<b>Forensic medicine and toxicology</b>		
1	Documentation and certification of injuries	B	10 and more
2	Declaration of death	B	5 and more



3	Keeping legal documentation in case of emergencies	B	1 and more
4	Certification of medico-legal cases (age assessment, sexual violence, etc.)	B	5 and more
5	Liaison in medico-legal cases with the police, relevant health departments, etc	B	5 and more
<b>18</b>	<b>Public health</b>		
1	Apply the basics of strategic planning in the field of health care. The mechanism of implementation of the state policy on the management of the health care system in Ukraine. Decentralization of management of medical facilities.	B	5 and more
2	Use international medical and social rules. Apply the International Convention on Quarantine Diseases. Organization of preventive and anti-epidemic measures at the community level. Organization of preventive and anti-epidemic measures in a health care institution.	B	5 and more
3	Organize the management apparatus as a component part of the system. Use the technology of development and management decision-making.	B	5 and more
4	Be able to monitor and provide evaluation, data quality, data use and public health information.	B	5 and more
5	Know the system of human rights in the field of health care.	B	5 and more
6	Implement the organization's quality management system. National and international standards. The main directions of implementation in the current quality assurance system medical assistance.	B	5 and more
7	To implement the theoretical foundations of personnel management of the organization.	B	5 and more
8	Use management culture as a component management	B	5 and more

9	Organization of examination of temporary incapacity for work in health care facilities, palliative and hospice care.	B	5 and more
10	Identify the problems of AIDS and viral hepatitis.	B	5 and more
11	Identify the problems of tuberculosis.	B	5 and more
12	To organize emergency medical assistance to the population in case of emergencies.	B	5 and more
13	To implement organizational and legal issues in the work of medical institutions in emergency situations, including combat operations.	B	5 and more
14	Management of the quality of medical care as a mechanism for increasing its efficiency. Tools of state management of the quality of medical care (emergency medical care). Logistics of emergency medical assistance to the population.	B	5 and more
<b>19</b>	<b>Course of choice</b>		
	<b>19.1 Instrumental methods of examining a surgical patient in general medical practice</b>		
1	Ultrasonography of the vessels of the lower extremities	B	2 and more
2	Digital examination of the rectum	B	2 and more
3	Rheovasography	B	2 and more
4	Anoscopy	B	2 and more
5	Capillaroscopy	B	2 and more
6	Fibrocolonoscopy	B	2 і БІЛЬШЕ
7	Rectomanoscopy	B	2 and more
8	Puncture of the abdominal cavity	B	2 and more
	<b>19.2 Instrumental diagnosis of a therapeutic patient in general medical practice (ECG, ultrasound, diagnosis of the most common syndromes)</b>		
1	Ultrasonographic examination of organs of the abdominal cavity and retroperitoneal space	B	2 and more
2	Computer examination of organs of the abdominal cavity and retroperitoneal space	B	2 and more
3	ECG registration and analysis	B	2 and more
4	Registration and analysis of Holter ECG monitoring	B	2 and more

5	Identification of the main rhythms on the ECG, signs of ACS	B	2 and more
	Interpretation of ultrasound examination joints	B	2 and more
6	Ultrasound examination of abdominal organs	B	2 and more
7	Ultrasound examination of the kidneys	B	2 and more
8	Evaluation of the data of visual methods of examination of internal organs (radiological, ultrasonographic, CT, MRI, scintigraphy)	B	2 and more
	<b>19.3 Emergency conditions in children in general medical practice (diagnosis of "red flags", emergency care)</b>		
1	Care of the umbilical remnant and umbilical wound of the child	B	2 and more
2	Catheterization of the umbilical vein	B	2 and more
3	Techniques of active cleaning of the respiratory tract	B	2 and more
4	Closed heart massage	B	2 and more
5	Carrying out ventilation using a bag, mask and endotracheal tube	B	2 and more
6	Stabilization of premature babies at birth	B	2 and more
7	Inhalation of medicines using a nebulizer and various types of inhalers	B	2 and more
8	Providing emergency care for acute kidney failure.	B	2 and more

## Recommended reading

### Basic

1. General practice - family medicine: in 3 books. Book 1. Organization of primary medical care: textbook / L.S. Babinets, L.V. Andriyuk, V.I. Velichko and others. – K.: Medicine, 2023, 448 p.
2. Family medicine: textbook / edited by Matyukha L.F., Kolesnyk P.O., Igor Svab, Milica Katic. – Uzhhorod: RIK-U, 2022. – 692 p.
3. Murtagh General Practice, 8th Edition / John Murtagh, Jill Rosenblatt, Clare Murtagh, Justin Coleman, McGraw Hill, 2022.
4. Family Medicine: in 3 books: textbook. Book 1. General Issues of Family Medicine / O.M. Hyrina, L.M.Pasiyeshvili, O.M.Barna, A.S.Svintsitskiy et al.; edited by O.M. Hyrina, L.M.Pasiyeshvili. - Kyiv: AUS Medicine Publishing, 2016. – 560 p.

### Auxiliary

1. Palliative and hospice medicine: medical and social aspects: a textbook / L.M. Pasiyeshvili, A.A. Zazdravnov, L.S. Babinets and others.; ed. L.M. Pasiyeshvili, A.A. Zazdravnov.-Lviv: "Magnolia 2006", 2023.- 340 p.
2. 5-Minute Clinical Consult 2024/ Frank Domino, LWW, 2023, 1246 p.
3. Fast Facts for the Family Medicine Board Review/ Frank Domino, LWW, 2023, 226 p.
4. Family Medicine Board Review Book Multiple Choice Questions & Answers, Second edition/Robert A. Baldor, LWW, 2023, 384 p.
5. Text book of Family Medicine. NINTH EDITION. Robert E. Rakel, David P. Rakel. - Elsevier, Philadelphia, PA, 2016 – 1201 p. (on-line - [http://familymed.sbm.u.ac.ir/uploads/textbook\\_family\\_medicine\\_rakel.pdf](http://familymed.sbm.u.ac.ir/uploads/textbook_family_medicine_rakel.pdf)).

### Information resources

1. Law of Ukraine "On Education"
2. Law of Ukraine "On Higher Education"
3. Order of the Ministry of Health No. 1254 as amended
4. WONCA Global Standarts for Family Doctors Postgraduate Education  
<https://wfme.org>
5. [guidelines.moz.gov.ua](https://guidelines.moz.gov.ua)
6. [https://thc.nic.in/Central%20Governmental%20Regulations/National%20Medical%20Commissions%20\(Compulsory%20Rotating%20Medical%20Internship\)%20Regulations,%202021.pdf](https://thc.nic.in/Central%20Governmental%20Regulations/National%20Medical%20Commissions%20(Compulsory%20Rotating%20Medical%20Internship)%20Regulations,%202021.pdf)

7. <https://www.buzer.de/gesetz/4576/index.htm>
8. <http://clinicalevidence.bmj.com>
9. <https://izba-lekarska.pl/staz-podyplomowy/procedury-i-formularze>
10. <http://inmeds.com.ua/> – web resource "Unified Medical Space"
11. <http://mtd.dec.gov.ua>
12. <http://www.aafp.org/home.html> American Academy of Family Physicians
13. <http://www.awmf.org> The Association of the Scientific Medical Societies in Germany
14. <http://www.bnf.fr/> – National Library of France
15. <http://www.cma.ca/> Canadian Medical Association InfoBase (CMA InfoBase: Clinical Practice Guidelines (CPGs))
16. <http://www.cochrane.org/>
17. <http://www.ddb.de/>
18. <http://www.epa-une psa.org/> European Pediatric Association, the Union of National European Pediatric Societies and Associations (EPA/UNEPSA)
19. <http://www.has-sante.fr/> The French National Authority for Health
20. <http://www.medscape.com>
21. <http://www.nhsantibioticguidelines.org.uk/>
22. <http://www.uptodate.com>
23. <https://dec.gov.ua> – State Expert Center of Ukraine
24. <https://www.aap.org> American Academy of Pediatrics Policy (AAP Policy) Clinical Practice Guidelines
25. <https://www.ama-assn.org/> AMA (American Medical Association)
26. <https://www.cdc.gov/>
27. <https://www.duodecim.fi/> The Finnish Medical Society Duodecim
28. <https://www.egprn.org> – Organization of researchers in primary care
29. <https://www.nice.org.uk/> National Institute for Health and Clinical Excellence (NICE)
30. <https://www.nice.org.uk/guidance/>
31. <https://www.rcplondon.ac.uk/> Royal College of Physicians
32. <https://www.woncaeurope.org> – World Association of Family Physicians (Europe)
33. [www.ufm.org.ua](http://www.ufm.org.ua) – Ukrainian Association of Family Medicine