

MINISTRY OF HEALTH CARE OF UKRAINE
DONETSK NATIONAL MEDICAL UNIVERSITY



"APPROVED"
Vice-Rector for
Scientific and Pedagogical Work
Prof. O. Chernyshova

"19" 02 2024

WORKING PROGRAM

«Clinical Practice Training»

specialty 222 «Medicine» 228 «Pediatrics»
(code and name of speciality)
education level Second (master's)
(education level name, EQL)
education program Educational and professional program «Doctor»
(code, name of education program)
Educational and professional program «Paediatrician»
(code, name of education program)

status
faculty
year

obligatory
medical
5

Kropyvnytskyi 2024

DEVELOPER:

University Supervisor of Clinical practice



Candidate of Medical
Sciences, Associate Professor
Vyacheslav HUSIEV

"APPROVED"

Guarantor of the educational and
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Candidate of Medical Sciences,
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Guarantor of the educational and
professional program «Paediatrician»
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Professor
Olha CHERNYSHOVA



« 14 » 02 2024.

Introduction

The program of Clinical Practice Training is compiled according to the Standard of Higher Education (hereinafter - the Standard) for the second (master's) level – field of knowledge **22 “Health care”** - specialty **222 “Medicine”, 228 “Pediatrics”** and the sample curriculum for training specialists of the second (master's) level of higher education in the field of knowledge **22 “Health care”** in higher educational institutions of the Ministry of Health of Ukraine in specialty **222 “Medicine”, 228 “Pediatrics”** for qualification of educational “Master of Medicine”, qualification of professional “Doctor”, “Pediatrician” approved by the Ministry of Health of Ukraine on 08.11.2021, “Regulations on Clinical Practice Training at Donetsk National Medical University”, approved by the Academic Council of the University on 24.05.2023, minutes № 8 and “Regulations on the organization of the educational process at Donetsk National Medical University”, adopted by the Academic Council of the university on 12.10.2021, minutes № 2.

The Clinical Practice Training program is a methodical document for education applicants and practice training managers. It is necessary for clear planning and regulation of the activities of education applicants and instructors.

1. Academic Discipline’s Description

The academic discipline "**Clinical Practice Training**" for 5th year education applicants comprises 4 content modules: 1 - "The main responsibilities and professional actions of a general practitioner - a family doctor in providing therapeutic care"; 2 - "The main responsibilities and professional actions of a general practitioner - a family doctor in providing surgical care"; 3 - "Main responsibilities and professional actions of a general practitioner - family doctor in providing pediatric care" and 4 - "Main responsibilities and professional actions of a general practitioner - family doctor in providing obstetric and gynecological care" lasting 240 hours, which is 8 credits.

<i>Academic discipline structure</i>	<i>Number of hours</i>			<i>Student’s independent study</i>	<i>Year of studies</i>	<i>Type of control</i>
	<i>Total hours/ ECTS credits</i>	<i>Classroom studies</i>				
		<i>Lectures</i>	<i>Practical classes</i>			
<i>Work practice module</i>	240/8	-		240	5	<i>FC</i>
<i>Content module 1. Internal medicine practice</i>	60/2	-		60	5	<i>FC</i>
<i>Content module 2. Surgery practice</i>	60/2	-		60	5	<i>FC</i>
<i>Content</i>	60/2	-		60	5	<i>FC</i>

<i>module 3. Pediatrics practice</i>						
<i>Content module 4. Obstetrics and Gynecology practice</i>	60/2	-		60	5	FC

At the end of each content module there is the final module control of practical skills and knowledge according to the discipline and is ranked into one grade for "**Clinical Practice Training**".

Academic discipline "**Clinical Practice Training**" for 5th year education applicants:

- is based on the knowledge gained by students in the study of medical biology, normal and pathological anatomy, topographic anatomy, normal and pathological physiology of the female reproductive system, histology and embryology, microbiology, pharmacology, propaedeutics of internal and pediatric diseases, general surgery and is integrates with these disciplines.

- lays the foundations to study modern diagnostic technologies used in clinical practice, which involves the integration of teaching with different disciplines and the formation of skills to apply knowledge of modern diagnostic methods in the process of further study and professional activities.

2. Aim and Objectives of Academic Discipline

The **AIM** of conducting "**Clinical Practice Training**" is to perform the duties of primary care physicians in outpatient health care facilities and to achieve the main ultimate goals set in the educational and professional training programs for the specialty **222 "Medicine"**, **228 "Pediatrics"**, educational professional program "Doctor", "Pediatrician".

Objectives:

- to conduct a clinical examination of patients and analyze their results;
- plan the sequence of examination for each patient depending on the features of the clinical course of the disease;
- to analyze the results of basic laboratory and instrumental research methods;
- to determine the leading pathological symptoms and syndromes in the most common diseases;
- to make a differential diagnosis and make a preliminary diagnosis of the most common diseases;
- to determine and interpret the general principles of treatment, rehabilitation and prevention of the most common therapeutic, surgical, pediatric and obstetric and gynecological diseases;
- to improve methods of diagnosis and provision of emergency medical care at the pre-hospital stage;

- to improve medical manipulations carried out at the level of primary care;
- to get acquainted with the peculiarities of keeping medical records in family medicine centers / outpatient clinics and ambulance teams,
- to be able to apply them in practice; master and apply moral deontological principles of general practitioner-family doctor and emergency physician.

The **objective of practice training** is to consolidate the knowledge and skills acquired in the study of basic clinical disciplines (patient examination, conducting differential diagnosis and establishment of clinical diagnosis, treatment, prevention, medical examination) and further improvement of practical skills, familiarization with the organization of medical business and work conditions of the doctor in polyclinic and women's consultation, and also consolidation of skills for preventive work and promotion of a healthy lifestyle.

Competences and learning outcomes, to formation of which Clinical Practice Training contributes (interrelation with the normative content of higher education training, formulated in terms of learning outcomes in the Standard)

According to the Standard's requirements, **Clinical Practice Training** provides students with the acquisition of **competencies**:

- integral:

Ability to solve complex problems, including research and innovation in medicine.
Ability to continue studies with a high degree of autonomy.

- general:

1. Ability to abstract thinking, analysis and synthesis.
2. Ability to learn and master modern knowledge.
3. Ability to apply knowledge in practical situations.
4. Knowledge and understanding of the subject area and understanding of professional activity.
5. Ability to adapt and act in a new situation.
6. Ability to make informed decisions.
7. Ability to work in a team.
8. Ability to interpersonal interaction.
9. Ability to communicate in a foreign language.
10. Ability to use information and communication technologies.
11. Ability to search, process and analyze information from various sources.
12. Definiteness and persistence in terms of tasks and responsibilities.
13. Awareness of equal opportunities and gender issues.
14. Ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.
15. Ability to preserve and increase moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology, use different types and forms of motor activities for active recreation and a healthy lifestyle.

- special (professional, subject):

1. Ability to collect medical information about the patient and analyze clinical data.

2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.
3. Ability to establish a preliminary and clinical diagnosis of the disease.
4. Ability to determine the required mode of work and rest in the treatment and prevention of diseases.
5. Ability to determine the role of nutrition in the treatment and prevention of diseases.
6. Ability to determine the principles and nature of treatment and prevention of diseases.
7. Ability to diagnose emergencies.
8. Ability to determine tactics and provide emergency medical care.
9. Ability to carry out medical and evacuation measures.
10. Ability to perform medical manipulations.
11. Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.
12. Ability to determine the tactics of physiological pregnancy, physiological childbirth and the postpartum period. Family planning and contraceptive counseling skills.
13. Ability to carry out sanitary and hygienic and preventive measures.
14. Ability to plan and conduct preventive and anti-epidemic measures against infectious diseases.
15. Ability to conduct a performance examination.
16. Ability to keep medical records, including electronic forms.
17. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.
18. Ability to analyze the activities of a doctor, department, health care institution, ensure the quality of medical care and improve the efficiency of medical resources.
19. Ability to organize and integrate medical care and marketing of medical services.
20. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.
21. To communicate one's knowledge, conclusions and arguments on health issues and related issues to specialists and non-specialists, in particular to students clearly and unambiguously.
22. Ability to manage health workflows that are complex, unpredictable and require new strategic approaches
23. Ability to develop and implement scientific and applied projects in health care field.
24. Adherence to ethical principles when working with patients, laboratory animals.
25. To observe professional and academic integrity, to be responsible for reliability of the received scientific results.

3. Learning Outcomes

Integrative final program learning outcomes, to formation of which the discipline “Clinical Practice Training” contributes, lay the foundation for the further formation of the following program learning outcomes according to EPP “Medicine” in the field of knowledge 22 “Health”, specialty 222 “Medicine”, 228 “Pediatrics”:

1. To have a thorough knowledge of the professional activity structure. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

2. Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient to solve professional problems in the field of health care.

3. Specialized conceptual knowledge, which includes scientific achievements in the field of health care and is the basis for research, critical understanding of problems in the field of medicine and related interdisciplinary problems.

4. Highlight and identify the leading clinical symptoms and syndromes according to standard methods, using preliminary history of the patient, patient examination data, knowledge about the person, his organs and systems, to establish a preliminary clinical diagnosis of the disease.

5. Collect complaints, history of life and disease, assess the psychomotor and physical development of the patient, the state of organs and systems of the body, based on the results of laboratory and instrumental studies to assess information about the diagnosis, considering the patient's age.

6. Establish a final clinical diagnosis by making an informed decision and analysis of subjective and objective data of clinical, additional examination, differential diagnosis, adhering to the relevant ethical and legal norms, under the supervision of a physician-manager in a health care facility.

7. Prescribe and analyze additional (mandatory and optional) methods of examination (laboratory, functional and / or instrumental), patients with diseases of organs and systems of the body for the differential diagnosis of diseases.

8. To determine the main clinical syndrome or what causes the severity of the injured by making an informed decision and assessing the human condition under any circumstances (in a health care facility, outside it), including in conditions of emergency and hostilities, in the field, in conditions of lack of information and limited time.

9. To determine the nature and principles of treatment of patients (conservative, operative) with diseases, taking into account the age of the patient, in the health care facility, outside it and at the stages of medical evacuation, including in the field, on the basis of a preliminary clinical diagnosis, adhering to the relevant ethical and legal norms, by making an informed decision on existing algorithms and standard schemes, if necessary to expand the standard scheme to be able to justify personalized recommendations under the supervision of a physician.

10. To determine the necessary mode of work, rest and nutrition on the basis of the final clinical diagnosis, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

11. To determine the approach, plan and tactics of physiological pregnancy, physiological childbirth and the postpartum period by making an informed decision according to existing algorithms and standard schemes.

12. Assess the general condition of the newborn child by making an informed decision according to existing algorithms and standard schemes, adhering to the relevant ethical and legal norms.

13. Assess and monitor the child's development, provide recommendations for breastfeeding and nutrition depending on age, organize preventive vaccinations according to the calendar.

14. Define tactics and provide emergency medical care in emergencies for a limited time in accordance with existing clinical protocols and treatment standards.

15. Organize the provision of medical care and medical and evacuation measures to the population and servicemen in emergencies and hostilities, including in the field.

16. To form rational medical routes of patients; to organize interaction with colleagues in the and other establishments, the organizations and establishments; to apply tools for the promotion of medical services on the market, based on the analysis of the needs of the population, in the conditions of functioning of the health care institution, its subdivision, in a competitive environment.

17. Perform medical manipulations in a medical institution, at home or at work on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision, adhering to the relevant ethical and legal norms.

18. To determine the state of functioning and limitations of a person's life and duration of incapacity for work with the execution of relevant documents in the health care institution on the basis of data on the disease and its course, features of professional activity, etc. Maintain medical records of the patient and the population on the basis of regulations.

19. Plan and implement a system of anti-epidemic and preventive measures for the occurrence and spread of diseases among the population.

20. Analyze the epidemiological situation and carry out measures of mass and individual, general and local prevention of infectious diseases.

21. Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information.

22. Apply modern digital technologies, specialized software, and statistical data analysis methods to solve complex health problems.

23. Assess the impact of the environment on human health to assess the incidence of the population.

24. Organize the necessary level of individual safety (own and persons cared for) in case of typical dangerous situations in the individual field of activity.

25. Clearly and unambiguously communicate their knowledge, conclusions and arguments on health issues and related issues to professionals and non-specialists.

26. Manage health workflows that are complex, unpredictable and require new strategic approaches, organize the work and professional development of staff, taking into account the acquired skills of effective teamwork, leadership positions, proper quality, accessibility and fairness, ensuring integrated health care.

27. Fluent in the state and English languages, both orally and in writing to discuss professional activities, research and projects.

28. Make effective decisions on health issues, assess resources, and take into account social, economic and ethical implications.

29. Plan, organize and conduct activities for the specific prevention of infectious diseases, including in accordance with the National Calendar of preventive vaccinations, both mandatory and recommended. Manage vaccine residues; organize additional vaccination campaigns, including immunoprophylaxis measures.

As a result of "Clinical Practice Training", the education applicant must know:

1. etiological and pathogenic factors of diseases.
2. classify and analyze the typical clinical pattern.
3. make a plan of examination and analyze the data of laboratory and instrumental examinations in the typical disease course.
4. demonstrate mastery of the principles of treatment, rehabilitation and prevention of diseases.

5. to determine clinical diagnosis.
6. provide emergency care in case of major emergencies.
7. to carry out differential diagnostics and to make the preliminary diagnosis at a typical disease course.
8. assess the prognosis of the disease.
9. demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination.

Be able to:

1. collect medical history.
2. examine the patient.
3. plan examination of the patient;
4. interpret the results of laboratory and instrumental research;
5. carry out differential diagnosis of the most widespread diseases at their typical course;
6. determine the preliminary clinical diagnosis;
7. to determine therapeutic, surgical tactics of treatment;
8. determine the tactics of managing a pediatric patient;
9. determine the tactics of management of obstetric and gynecological patients;
10. prescribe medical nutrition;
11. provide emergency medical care;
12. solve situational problems;
13. keep medical records.

4. Structure of the Discipline

Modules, themes	Practical classes	Independent study	Total
Content module I. Main duties and professional actions of a general practitioner - family doctor when providing therapeutic care			
Principles of organization of planned and urgent therapeutic assistance in outpatient conditions. Studying the structure and organization of work of an outpatient and polyclinic health care institution of primary medical health assistance, content and volume of work of a doctor-therapist.		10	10
Outpatient care. Anamnesis (complaints, history, modern consulting techniques) and objective clinical examination of the patient. Filling in the patient's outpatient card. Determining the amount of additional research, evaluating their results. Establishing a preliminary diagnosis. Determining the tactics of the patient's further treatment and his capacity for work.		10	10
Work in the functional diagnostic room: ECG analysis for myocardial infarction, rhythm and heart conduction disorders; participation in the		10	10

echocardiographic examination and its clinical interpretation, participation in the ultrasound of abdomen organs and joints.			
Work in the emergency room in the outpatient and polyclinic institution of health care: examination of the patient, identification of leading syndromes in urgent conditions. Participation in emergency care in urgent conditions: acute heart failure, hypertensive crisis, paroxysmal disorders of the heart rhythm, Morgagni-Adams-Stokes syndrome, pulmonary embolism, acute renal failure, attacks of gouty arthritis, etc.		10	10
Work in the physiotherapy workshop: participation in the appointment and carrying out of procedures - electrotherapy by constant current, impulse current of low and sound frequency, high-frequency electrotherapy, magnetotherapy, aeroionotherapy, ultrasound therapy, heat and water treatment procedures. Principles of ethics and deontology in the practice of a physician. FC		10	10
FC		10	10
Total:	-	60	60
Content module II. Main duties and professional actions of a general practitioner - family doctor when providing surgical care			
Principles of organizing planned and urgent outpatient surgical care in Ukraine. Outpatient care of the patient. Obtaining anamnesis and conducting physical examination of patients. Filling in the patient's outpatient card. Determination of additional examinations, their evaluation. Establishment of a preliminary diagnosis. Determining the tactics of the patient's further treatment and his capacity for work. Cancer screening of patients.		10	10
Outpatient care of a trauma patient.		10	10
Work in the dressing - performing dressings, lancing of abscesses, primary surgical treatment of wounds. Determination of indications for the tetanus prevention.		10	10
Work in the endoscopic room - participation in the performance of rectoromanoscopy, colonoscopy, bronchoscopy, CT, mammography, ultrasound.		10	10
Interpretation of radiographs. Transport immobilization. Participation in joint puncture and joint dislocation management.		10	10
FC		10	10

Total:	-	60	60
Content module III. Main duties and professional actions of a general practitioner - family doctor when providing pediatric care			
Structure and organization of work of a children's center/outpatient clinic. Participation in making basic documents in the work of a local pediatrician. Outpatient care of a sick child. Diagnosis and treatment of basic pediatric diseases in outpatient conditions.		10	10
Indications for planned and urgent hospitalization of children in outpatient practice. Providing emergency care to children at the pre-hospital stage. Carrying out preventive measures and check-ups of children with diseases of different body systems.		10	10
Principles of organization of vaccinal prevention of infectious diseases in Ukraine. Participation in the vaccination of children in the conditions of the center/outpatient clinic of family medicine. Providing emergency care for children with complications after vaccination.		10	10
Healthy checks supervision system for healthy children. Assessment of physical and neuropsychiatric development of the child. Health assessment of the child. Drawing up a healthy baby's diet. Carrying out preventive measures and check-ups of children with diseases of different body systems.		10	10
The technique of hardening young children and children who are often ill. Participation in the patronage system for children. Carrying out sanitary and educational work. Creating adequate psychological contact between a doctor and healthy and sick children. Application of principles of ethics and deontology in pediatrics. FMC		10	10
FC		10	10
Total:	-	60	60
Content module IV. Main duties and professional actions of a general practitioner - family doctor when providing obstetric and gynecological care			
Peculiarities of maintaining medical documentation when working with a pregnant, a gynecological patient. Obtaining anamnesis and examination of a pregnant, a gynecological patient. Analysis of the clinical anatomy of the female genital organs, detection of anomalies of the bony pelvis, incorrect position and presentation of the fetus, pathological course of pregnancy, carrying over of pregnancy;		10	10

dysfunction of the reproductive system in a gynecological patient.			
Identification of etiological and pathogenic factors of disorders of the function of the reproductive system and gynecological diseases - neuroendocrine syndromes, pathological conditions in the perimenopausal period, benign tumors of the female genital organs, background and precancerous diseases, malignant neoplasms. Preparation of an examination plan and analysis of laboratory and instrumental examination data for pathological conditions in pregnant / gynecological patients. Determination of the preliminary clinical diagnosis and tactics of managing the pregnant/patient. Differential diagnosis of pathological conditions in pregnant women / gynecological diseases, methods of their treatment.		10	10
Observation of pregnant women and women in labor in a women's health center, including those with complicated pregnancy and postpartum period; observation of gynecological patients in outpatient settings.		10	10
Diagnosis of neuroendocrine syndromes, pathological conditions in the perimenopausal period, diagnosis of benign tumors of the female genital organs, background and precancerous diseases, and malignant neoplasms. Providing medical care to gynecological patients in a women's health center.		10	10
Creating adequate psychological contact between a gynecologist and a sick woman. Application of principles of ethics and deontology in gynecology.		10	10
FC		10	10
Total:	-	60	60
Total hours/ credits	-	240	240/8

5. Program of the Discipline

Content module 1. Main duties and professional actions of a general practitioner-family doctor when providing therapeutic care:

- principles of organizing the provision of planned and urgent therapeutic care to the outpatient clinic health care institution of primary care, peculiarities of maintaining medical records;
- work in the ward of functional diagnostics;
- work in a physiotherapy ward;
- work in specialized (cardiology, gastroenterology, pulmonology, nephrology, rheumatology, etc.) wards of polyclinics/CDC (clinical and diagnostic centers);
- application of the principles of ethics and deontology, modern techniques of patient consulting in the practice of a family doctor.

Content module 2. Main duties and professional actions of a general practitioner - family doctor when providing surgical care:

- clinical, laboratory and instrumental diagnosis, tactics of treatment of common surgical diseases in outpatient conditions;
- work in a surgical ward of polyclinics/CDC (clinical and diagnostic centers);
- providing general surgical and specialized (trauma, urinary, etc.) care in outpatient clinics/CDC (clinical and diagnostic centers);
- application of the principles of ethics and deontology, modern techniques of patient consulting in the practice of a family doctor.

Content module 3. Main duties and professional actions of a general practitioner - family doctor when providing pediatric care:

- organizational principles of providing medical care to children in outpatient conditions, peculiarities of making medical documents;
- clinical, laboratory and instrumental diagnosis and tactics of treatment of common children diseases in outpatient conditions;
- principles of organization of immunization in Ukraine;
- healthy checks supervision system for healthy children and sick children;
- application of principles of ethics and deontology, modern techniques of patient consulting in the pediatric practice of a family doctor.

Content module 4. Main duties and professional actions of a general practitioner - family doctor when providing obstetric and gynecological care:

- principles of organization of medical care for pregnant and healthy women and gynecological patients in outpatient settings;
- clinical, laboratory, instrumental diagnosis of pathological conditions in obstetrics (anomalies of the bony pelvis, incorrect position and presentation of the fetus, macrosomia, pathological course of pregnancy, carrying over of pregnancy), management tactics in outpatient settings;
- monitoring of pregnant women and women giving birth by the women's health center;
- clinical, laboratory, instrumental diagnosis of gynecological diseases (neuroendocrine syndromes, pathological conditions in the perimenopausal period, benign tumors of female genital organs, background and precancerous diseases, malignant neoplasms). Providing medical care to gynecological patients in the women's health center;
- oncoprophylaxis in gynecology,
- check-ups of gynecological patients in outpatient settings;
- application of principles of ethics and deontology in the practice of a family doctor.

6. Monitoring Study Progress

Methods and Tools of Standardized Assessment Current Learning Activity and Final Control

Assessment of independent practical study of education applicants (IPSS) on practice bases and final control (FC) are carried out on the last day of practice. The FC is accepted

by the commission (according to the order of the DNMU rector) consisting of the head of the practice and employees of the profile departments.

The module assessment is defined as the sum of the current controls for content modules (in points), which is presented in the evaluation of practical skills in accordance with the list determined by the practice program.

The maximum number of points assigned to students for the module (credit credit) - 200, including current activity (content modules) - 120 points (60%), according to the results of final control - 80 points (40%).

Individual Student's Work Assessment

Points for individual tasks are given to the education applicant only under the conditions of successful implementation and defense. The assessment for the individual independent work of the education applicant is calculated as the average score in the assimilation of the whole list of skills and skills of each of the four content modules: internal medicine, surgery, obstetrics, pediatrics (see Annexes 1-4). The arithmetic mean of content modules is converted into points. The total amount of points for ranges from 72 to 120 points. The final control is allowed for education applicants who have completed the medical work practice program, have properly issued reporting documents and received at least 72 points for their current activities.

Assessment Criteria of Final Control (FC)

Evaluation of the FC is carried out in accordance with the Regulation on the organization and conduct of control measures, making up for missed classes and improving the rating of DNMU students, enacted by the Order of DNMU No. 397 dated September 02, 2019.

[Положення про організацію та проведення контрольних заходів, відпрацювання пропущених занять та підвищення рейтингу • Донецький національний медичний університет \(dnmu.edu.ua\)](http://dnmu.edu.ua)

The final control of defense of Clinical Practice Training is standardized and is exposed as arithmetic mean (4 points system), taking into account the following steps:

1) assessment of students' knowledge, skills and practical abilities based on the practice of grades from diary and work characteristics.

2) evaluation of the correctness of keeping and registration of reporting documentation (diary, final report);

3) results of assessment of knowledge of education applicants during interview at the defense of Clinical Practice Training (oral survey, use of tests and/or situational tasks) and practical training.

The total number of points that the education applicant scored from the discipline is defined as the average score for current learning activity, converted to a 200-point scale.

The FC regulation provides obtaining and demonstration of skills in accordance with the 5th-year education applicants of four content modules: internal medicine, surgery, obstetrics, and pediatrics.

According to the results of the FC, the education applicant receives four grades: internal medicine, surgery, pediatrics, and obstetrics. These four estimates calculate the average grade for FCs in clinical training practice. Then the average grade is converted to FC points. The final control is considered credited if the education applicant has scored at least 60% of the maximum number of points for the FC (i.e., not less than 48 points, this number of ECTS points is equal to the amount of traditional estimates "3").

Rating Matching Scale

The result obtained on a 200-point scale is converted into the traditional four-point system and the ECTS system according to the following table:

Grade in 200-point system	Grade on the traditional four-point scale	Grade in ECTS system
180-200	5	A
164-179	4	B
150-163		C
135-149	3	D
120-134		E
<120	2	FX

Annex 1. General Digital Report on the Results of Passing Clinical Practice Training in Internal Medicine (IPSS)

Education applicant _____ 5 year of Medical faculty № _____, group _____
on the base of primary health care center № _____ city _____

List of Skills and Abilities	Number of skills	Grade in Points
1. Taking patients in primary health care center. palpation: chest, atrial portion, joints, lymph nodes, thyroid, abdomen, vessels, pulse assessment; lungs, heart, abdomen percussion; auscultation of lungs, heart, blood vessels and abdomen, static and dynamic examination of joints and spine;	30-40-50	3-5
2. Shifting in the emergency room or admission department (office work – grade 3; work in the department – grade 4, shifting in the department – grade 5);	1	3-5
3. BP measurement (in upper and lower extremities);	30-40-50	3-5
4. Evaluation of laboratory methods of examination (acute - phase blood indicators, total protein and fractions, transaminase of blood, coagulogram, laboratory markers of myocardial necrosis, lipid spectrum of blood, creatinine, blood electrolyte, urea, uric acid, ulcers of immune status, urine analysis according to Nechiporenko and Zymnitsky, data of microbiological examination of urine, etc.);	30-40-50	3-5
5. ECG registration and analysis;	10-20-30	3-5
6. Echocardiography data analysis;	3-6-10	3-5
7. Analysis of radiographs of chest, gastrointestinal, joints, spine, CT, angiography;	8-10-12	3-5
8. Analysis of ultrasound of abdominal organs and joints;	8-12-15	3-5
9. Participation in emergency care of acute cardiovascular failure, hypertensive crisis, paroxysmal disorders of the heart rhythm, MES syndrome, pulmonary embolism, attacks of gouty arthritis, etc.	1-3-5	3-5
Grade point average		72-120

Lecturer's signature _____

Annex 2. General Digital Report on the Results of Passing Clinical Practice Training in Surgery (IPSS)

Education applicant _____ 5 year of Medical faculty № , group _____
on the base of primary health care center № _____ city _____

List of Skills and Abilities	Number of skills	Grade in Points
1. Taking patients in primary health care center; (palpation: chest, joints, lymph nodes, thyroid, mammary glands, abdomen, blood vessels; percussion of lungs, abdomen; auscultation of lungs, vessels and abdomen);	20–30–40	3-5
2. Duty in the emergency room of the primary health care center or the admission department, trauma center; (office work - grade 3; work in the admission department or trauma center - grade 4, duty in the department - grade 5);	1	3-5
3. Evaluation of clinical (complete blood count and complete urine analysis) and biochemical blood tests (bilirubin and its fractions, blood proteins, amylase, blood electrolytes, coagulogram, etc.) in a surgical clinic;	30–40–50	3-5
4. Evaluation of instrumental examination data (radiography of the chest and abdomen, aortography, ultrasound of the abdominal cavity, Doppler ultrasonography of arteries and veins, CT, endoscopy) in surgical diseases;	8–12–15	3-5
5. Peculiarities of providing assistance in the dressing room: local anesthesia, suturing and removal;	1–2–3	3-5
6. Peculiarities of providing assistance in the dressing room: primary surgical treatment of wounds, dressings, pleural punctures and punctures of joints, etc.;	1–2–3	3-5
7. Assistance in the urology office: palpation of the prostate, catheterization of the bladder, cystoscopy;	1–2–3	3-5
8. Participation in transport immobilization, application of plaster cast;	1–2–3	3-5
9. Participation in the diagnosis and emergency care of stab wounds, spontaneous pneumothorax, traumatic shock, bleeding, phlebothrombosis, arterial thrombosis, etc.	1–2–3	3-5
Grade point average		72-120

Lecturer's signature _____

Annex 3. General Digital Report on the Results of Passing Clinical Practice Training in Pediatrics (IPSS)

Education applicant _____ 5 year of Medical faculty № , group _____
on the base of primary health care center № _____ city _____

List of Skills and Abilities	Number of skills	Grade in Points
1. Examination of healthy and sick children in primary health care center. (Palpation of the chest, atrium, joints, lymph nodes, thyroid, abdomen, blood vessels, pulse determination; percussion of the lungs, heart, abdomen; auscultation of the	20–25–30	3-5

lungs, heart, blood vessels and abdomen)		
2. Duty in the office of emergency therapy in the primary health care center or the admission department of the hospital; (work in the office - grade 3; duty in the office - grade 4, duty in the admission department - grade 5)	1	3-5
3. BP measurement (in upper and lower extremities);	10-15-20	3-5
4. Evaluation of laboratory test data: clinical (general test of blood, urine, feces), and biochemical (blood protein and fractions, acute phase indicators, blood urea and creatinine, electrolytes, glucose, blood bilirubin and fractions, transaminases, coagulogram, lipid profile blood), microbiological examination of biological fluids, polymerase chain reaction, enzyme-linked immunosorbent assay, general analysis of sternal punctate and cerebrospinal fluid;	20-25-30	3-5
5. ECG registration and analysis;	4-6-10	3-5
6. Echocardiography data analysis;	4-6-10	3-5
7. Analysis of radiographs of chest, gastrointestinal, joint, CT, angiography;	8-10-12	3-5
8. Analysis of ultrasound of abdominal organs;	8-10-15	3-5
9. Participation in the provision of emergency care to children (convulsions and hyperthermic syndrome, collapse, pulmonary edema, bronchospasm, asthmatic status, acute cardiovascular failure, infectious-toxic shock, acute renal failure, complications of vaccination and treatment: urticaria, angioedema, anaphylaxis, ketoacidotic coma, hypoglycemic coma, bleeding, etc.).	1-3-5	3-5
Grade point average		72-120

Lecturer's signature _____

Annex 4. General Digital Report on the Results of Clinical Practice Training in Obstetrics and Gynecology (IPSS)

Education applicant _____ 5 year of Medical faculty № , group _____ on the base of women's health center of primary health care center № _____ city _____

List of Skills and Abilities	Number of skills	Grade in Points
1. Diagnosis of anomalies of the bony pelvis, incorrect position and presentation of the fetus, macrosomia, carrying a pregnancy.	10-15-20	3-5
2. Bimanual examination of gynecological patients.	4-6-10	3-5
4. Examination of the cervix in specula.	4-6-10	3-5
5. Evaluation of clinical analysis of blood, urine.	10-15-20	3-5
6. Evaluation of smear results on the degree of purity of the vagina, cytological examination.	10-15-20	3-5
7. Analysis of ultrasound data of a pregnant woman and a fetus. Analysis of pelvic ultrasound data in gynecological patients.	10-20-30	3-5

8. Analysis of hormonal and immunological data in pregnant and gynecological patients.	5–10–15	3-5
9. Participation in the tactics of providing emergency care when a pregnant / gynecological patient goes to a women's consultation (obstetric bleeding during the 2nd half of pregnancy, in the postpartum period; bleeding in gynecological diseases: pathological conditions in the perimenopausal period, benign tumors of the female genital organs, background and precancerous diseases, malignant neoplasms). Participation in the provision of emergency care at the pre-hospital stage: uterine bleeding, ovarian apoplexy, etc.).	1–2–3	3-5
Grade point average		72-120

Lecturer's signature _____

LIST OF SKILLS AND PRACTICAL ABILITIES FOR THE FINAL CONTROL

Content module I. Main duties and professional actions of a general practitioner - family doctor when providing therapeutic care

1. Obtaining anamnesis and conducting physical examination of patients with common therapeutic diseases and evaluation of examination results for:
 - cardiovascular system;
 - respiratory organs;
 - gastrointestinal tract;
 - urinary system;
 - musculoskeletal system;
 - endocrine system.
2. Clinical interpretation of the results of additional examination methods:
 - ECG;
 - EchoCG;
 - ECG holter monitoring;
 - The results of drug tests and tests with exercise in terms of the cardiovascular system assessment;
 - Blood lipid panel;
 - Blood coag panel;
 - General clinical blood test;
 - Rentgenologic examination;
 - Indicators of the function of external respiration, spirometry;
 - Esophagogastroduodenoscopy;
 - CT scan, MRI and ultrasound of internal organs and joints;
 - General clinical urine test;
 - Diabetes tests.
3. ECG recording technique.
4. BP measurement in upper and lower extremities.
5. Establishment of a preliminary diagnosis and appointment of a treatment scheme for the diseases of internal organs in accordance with the current protocols for medical care, approved by the Ministry of Health of Ukraine.

Content module 2. Main duties and professional actions of a general practitioner - family doctor when providing surgical care

1. Watching surgical patients in the postoperative period in an outpatient setting.
2. Primary surgical treatment of wounds.
3. Applying and removing sutures, staples.
4. Applying an aseptic dressing to the wound.
5. Local anesthesia (infiltration and conduction blockade).

Content module 3. Main duties and professional actions of a general practitioner - family doctor when providing pediatric care

1. Obtaining general anamnesis and its assessment in children.
2. General examination, palpation, percussion and auscultation of organs and systems of the child's body.
3. Clinical interpretation and evaluation of laboratory and instrumental results of children's examination.
4. Assessment of age indicators of physical and neuropsychological development of the child.
5. Rationale and formulation of clinical diagnosis.
6. Assessment of the severity of the child's condition.
7. Compilation of the menu and calculation of food for children of the 1st year of life.
8. Immunization of children, vaccination calendar, contraindications and complications of vaccinations.
9. Calculation of drug dosage for children.
10. Planning of dispensary observation and rehabilitation measures for children of different age groups.

Content module 4. Main duties and professional actions of a general practitioner - family doctor when providing obstetric and gynecological care

1. Evaluate anamnestic data on the general and specific functions of women organism.
2. External obstetric examination and vaginal examination.
3. Diagnosis of anomalies of the bone pelvis, incorrect position and presentation of the fetus, macrosomia, carrying a pregnancy.
4. Bimanual examination of gynecological patients, examination of the cervix in specula.
5. Examination and palpation of the mammary glands.
6. Interpretation of the results in pregnant and gynecological patients: general, biochemical blood analysis, general, bacteriological analysis of urine, smears from the vagina for the degree of purity, cytological, hormonal, immunological studies.
7. Analysis of ultrasound data of a pregnant woman.
8. Analysis of pelvic ultrasound data in gynecological patients.
9. Tactics of providing emergency care when a pregnant woman goes to a women's health centre (for obstetric bleeding during the second half of pregnancy, in the postpartum period).
10. Tactics of providing emergency care for bleeding in gynecological patients: pathological conditions in the perimenopausal period, benign tumors of the female genital organs, background and precancerous diseases, malignant neoplasms).

Main duties and professional actions of a general practitioner - family doctor when providing emergency medical care

1. Pulse oxymetry.
2. Rehabilitation of the upper respiratory tract (manual and electric aspirator).
3. Dosed oxygen supply.
4. Estimation of respiratory rate.
5. Evaluation of capillary filling.
6. Peripheral vein catheterization.
7. Use of the system for infusion therapy.
8. Blood pressure measurement.
9. Applying a tourniquet.
10. Imposition of the neck collar.
11. Overlaying splints (Cramer's, vacuum, Sam-Splint).
12. Immobilization of the spine (fixation of the victim on a long transport board from the horizontal position of the patient, from the car).
13. Palpation of soft tissue emphysema, pathological mobility of rib fragments of the sternum, crepitation of fragments in chest trauma.
14. Performing a temporary cessation of arterial bleeding from wounds of the extremities, head, neck using finger pressure on blood vessels, tourniquet, bandage, and clamp. Stopping bleeding from the varicose node of the lower extremity.
15. Catheterization of the bladder with a soft catheter.

Annex 5. The Protocol of Assessment of Practical Abilities Transferred to the FC from the Content Module “Main duties and professional actions of a general practitioner - family doctor when providing therapeutic care”

№	Skills and Practical Abilities	Grade in Points	
1	Obtaining anamnesis and conducting physical examination of patients with major diseases of internal organs.	2-5	
2	Evaluation of clinical, biochemical and immunological studies of blood, urine, synovial fluid.	2-5	
3	Evaluation of the results of instrumental methods of examination: X-ray examination of the chest, abdomen, joints, spine, MRI, CT, X-ray contrast angiography, ECG, echocardiography, ultrasound of the abdominal cavity and joints.	2-5	
4	Rationale and formulation of clinical diagnosis.	2-5	
5	Interpretation of general principles of treatment, primary and secondary prevention of major diseases of the internal organs, musculoskeletal system.	2-5	
6	Emergency care in urgent situations (conditions) in acute heart failure, hypertensive crisis, paroxysmal heart rhythm disorders, MAS syndrome, pulmonary embolism, acute renal failure, gout attack, with acute anaphylactic reactions; ketoacidotic coma, hypoglycemic coma, etc.	2-5	
	The sum of points		48-80

Lecturer's signature _____

Annex 6. The Protocol of Assessment of Practical Abilities Transferred to the FC from the Content Module “Main duties and professional actions of a general practitioner - family doctor when providing surgical care”

№	Skills and Practical Abilities	Grade in Points	
1	Peculiarities of examination of a surgical patient: obtaining anamnesis, physical examination - examination of the patient, palpation, percussion, auscultation, rectal examination.	2-5	
2	Evaluation of clinical and biochemical analysis of blood, urine.	2-5	
3	Analysis of instrumental examinations (radiography of the chest and abdomen, aortography, ultrasound of the abdomen, Doppler ultrasonography of arteries and veins, CT, endoscopy) in surgical diseases.	2-5	
4	Rationale and formulation of clinical diagnosis, carrying out differential diagnosis of surgical diseases.	2-5	
5	Peculiarities of assistance in the dressing room: lancing of abscesses, primary surgical treatment of wounds, bandaging, pleural puncture and puncture of joints	2-5	
6	Emergency care for stab wounds, spontaneous pneumothorax, traumatic shock, bleeding, phlebothrombosis, injuries and bone fractures.	2-5	
	The sum of points		48-80

Lecturer's signature _____

Annex 7. The Protocol of Assessment of Practical Abilities Transferred to the FC from the Content Module “Main duties and professional actions of a general practitioner - family doctor when providing pediatric care”

№	Skills and Practical Abilities	Grade in Points	
1	Examination of healthy and sick children.	2-5	
2	Evaluation of laboratory test data: clinical (general test of blood, urine, feces), and biochemical (blood protein and fractions, acute phase indicators, blood urea and creatinine, electrolytes, glucose, blood bilirubin and fractions, transaminases, coagulogram, blood lipid profile), microbiological examination of biological fluids, polymerase chain reaction, enzyme-linked immunosorbent assay, general analysis of sternal punctate and cerebrospinal fluid.	2-5	
3	Evaluation of the results of instrumental methods of examination: X-ray examination of the chest, abdomen, joints, CT of the CNS, X-ray contrast angiography, ECG, echocardiography, ultrasound of the abdominal cavity.	2-5	
4	Knowledge of the timing of preventive vaccinations. Indications and contraindications to vaccination.	2-5	
5	Rationale and formulation of clinical diagnosis.	2-5	
6	Interpretation of general principles of treatment, primary and secondary prevention of major childhood diseases in	2-5	

	an outpatient setting.		
7	Participation in the provision of emergency care to children (convulsions and hyperthermic syndrome, collapse, pulmonary edema, bronchospasm, asthmatic status, acute cardiovascular failure, infectious-toxic shock, acute renal failure, complications of vaccination and treatment: urticaria, angioedema, anaphylaxis, ketoacidotic coma, hypoglycemic coma, bleeding, etc.).	2-5	
	The sum of points		48-80

Lecturer's signature _____

Annex 8. The Protocol of Assessment of Practical Abilities Transferred to the FC from the Content Module “Main duties and professional actions of a general practitioner - family doctor when providing obstetric and gynecological care”

№	Skills and Practical Abilities	Grade in Points	
1	Peculiarities of obtaining anamnesis, examination of pregnant women (size of the pelvis, position, presentation of the fetus, mass of the fetus, establishing the term of pregnancy; examination in mirrors, vaginal).	2-5	
2	Peculiarities of obtaining anamnesis, gynecological examination patients (bimanual, examination of the cervix in specula).	2-5	
3	Interpretation of the results of laboratory and instrumental examination in pregnant and gynecological patients: general, biochemical blood analysis, general, bacteriological analysis of urine, smears from the vagina on the degree of purity of vaginal contents, cytological, hormonal studies).	2-5	
4	Evaluation of ultrasound results of a pregnant woman and fetus.	2-5	
5	Evaluation of the results of ultrasound of the pelvic organs in gynecological patients.		
6	Rationale and formulation of clinical diagnosis, carrying out differential diagnosis of obstetrics pathology, gynecological diseases.	2-5	
7	Diagnosis of the conditions of a pregnant woman, parturient, which are accompanied by obstetric bleeding. Diagnosis of neuroendocrine syndromes, pathological conditions in the perimenopausal period, benign tumors of the female genital organs, background and precancerous diseases, malignant neoplasms.	2-5	
8	Provision of emergency care in the pre-hospital stage of pregnancy (with obstetric bleeding during the 2nd half of pregnancy, in the postpartum period); gynecological patient (with pathological conditions in perimenopausal period, benign tumors of female genitalia, background and precancerous diseases, malignant neoplasms).	2-5	

	The sum of points		48-80
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7. Themes of the Lectures

Study curriculum of the discipline does not include lecture material.

8. Themes of Practical Classes

Study curriculum of the discipline does not include practical classes.

9. Thematic Plan for Students' Independent Study

№	Theme	Number of Hours
1.	Principles of organization of planned and urgent therapeutic care in the outpatient department.	10
2.	Work in the therapeutic ward of the clinic.	10
3.	Work in the physiotherapy ward of the clinic.	10
4.	Work in specialized (cardiac and other) wards.	10
5.	Duties in the emergency room of the clinic, application of the principles of ethics and deontology in the practice of a physician of the clinic.	10
6.	Preparing for PC	10
7.	Principles of organization of planned and emergency surgical care in an outpatient setting. Clinical, laboratory-instrumental diagnostics and tactics of treatment of the basic surgical diseases in the conditions of polyclinic department.	10
8.	Work in the surgical ward of the clinic.	10
9.	Work in the trauma ward of the clinic.	10
10.	Work in the urology ward of the clinic.	10
11.	Improving the skills of providing emergency medical care for urgent surgical diseases in an outpatient setting by taking duties in the emergency room, the application of ethics and deontology in the practice of the doctor of the surgical department of the clinic.	10
12.	Preparing for PC	10
13.	Principles of organization of medical care for children in an outpatient setting.	10
14.	Clinical laboratory-instrumental diagnostics and tactics of treatment of the main children's diseases in out-patient conditions.	10
15.	Principles of organization of vaccine prophylaxis of infectious diseases in Ukraine.	10
16.	Healthy checks supervision system for healthy children.	10
17.	Healthy checks supervision system for sick children. Application of the principles of ethics and deontology in the practice of a local pediatrician.	10

18.	Preparing for PC	10
19.	Structure and organization of women's health center. Principles of providing medical care to women in an outpatient setting.	10
20.	Clinical, laboratory, instrumental diagnostics and tactics of treatment of pathological conditions in obstetrics (obstetric bleeding during the second half of pregnancy, in the postpartum period).	10
21.	Clinical, laboratory, instrumental diagnostics and tactics of treatment of gynecological pathology in the conditions of a women's health center (neuroendocrine syndromes, pathological conditions of perimenopausal period, benign female tumors of genitals, background and precancerous diseases, malignant neoplasms).	10
22.	Dispensary observation of gynecological patients; diagnosis and provision of emergency medical care at the pre-hospital stage.	10
23.	Application of the principles of ethics and deontology in the practice of a doctor in a women's health center.	10
24.	Preparing for PC	10
	Total:	240

10. Methodological Provision

1. Homozova O.A., Husiev V.M., Gyulmamedov P.F., Yermolaieva M.V., Zharikov S.O., Loskutova I.V., Olshevska O.V., Khapchenkova D.S., Chernyshova O.E. Methodical guidelines on conducting industrial medical practice of the 5th year students of the medical faculty of higher medical education – Kropyvnytskyi, 2024 – 19 p.

2. Situational tasks, test sets for control measures.

11. Recommended Sources

The main one

1. Likhachev V.K. Gynecology. a guide for doctors. 2018, Vinnytsia: New book, Ukrainian.
2. Modern approaches to the management of childbirth and the postpartum period in pathological pregnancy. Ed. Gromova A.M., L.A. Nesterenko, Poltava, 2016.
3. Obstetrics and gynecology: in 2 books. Book 1. Obstetrics: a textbook / V.I. Hryshchenko, M.O. Shcherbina, B.M. Ventskiivskyi et al. — 4th edition, K.. Medicine, 2020.-424 p.
4. Internal Medicine: Critical Care: textbook / O.Ya. Babak, O.M. Bilovol, N.M. Zhelezniakova et al.: edited by O.Ya. Babak, O.M. Bilovol. – Kyiv: AUS Medicine Publishing, 2018. – 368 p.
5. Internal Medicine: textbook: in 2 books. Book 1. Diseases of the Cardiovascular and Respiratory Systems / N.M. Seredyuk, I.P. Vakaliuk, R.I. Yatsyshyn et al. – Kyiv: AUS Medicine Publishing, 2019. – 664 p. + 48 colour insert.

6. Internal Medicine: textbook: in 2 books. Book 2. Diseases of the Digestive System, Kidney, Rheumatic and Hematological Diseases / N.M. Seredyuk, I.P. Vakaliuk, R.I. Yatsyshyn et al. – Kyiv: AUS Medicine Publishing, 2020. – 464 p. + 64 colour insert.
7. Internal Medicine: textbook for English-speaking students of higher medical educational establishments / K. M. Amosova [et al.] ; eds.: M. A. Stanislavchuk, V. K. Sierkova. – Vinnytsya : Nova Knyha, 2019. – Pt. 1: Cardiology. Rheumatology. Haematology. – 2019. - 408 p. : il.
8. Internal Medicine: textbook for English-speaking students of higher medical educational establishments / K. M. Amosova [et al.] ; eds.: M. A. Stanislavchuk, V. K. Sierkova. – Vinnytsya : Nova Knyha, 2019. – Pt. 2: Pulmonology. Gastroenterology. Nephrology. Diseases of the internal organs in countries with hot climate. – 2019. – 360 p.: il.
9. Internal Medicine: Critical Care: textbook / O.Ya. Babak, O.M. Bilovol, N.M. Zhelezniakova et al.: edited by O.Ya. Babak, O.M. Bilovol. – Kyiv: AUS Medicine Publishing, 2018. – 368 p.

Additional:

1. Chronic obstructive pulmonary diseases in the practice of a family doctor: Education. manual / G.I. Lysenko, O.B. Yashchenko, V.M. Mavrodiy, S.V. Danyliuk, O.P. Resin; Ed.: G.I. Lysenko; Kyiv. honey. Acad. postgraduate education named after P.L. Shupyka - K.: Book, 2005. - 93 p.
2. Arterial hypertension in modern clinical practice: Education. manual / O.I. uncle A.E. Bagrii, V.B. Hnylytska, A.L. Khristulenko, O.I. Karpenko. Center, method, room. With higher honey. Ministry of Education of Ukraine, Donetsk. state honey. University named after M. Gorky. – Donetsk: Weber, 2006. – 124 p.
3. Nephrology in the practice of a family doctor: training. manual / D.D. Ivanov, O.M. Cake. - K., 2006. - 272 p.
4. Clinical-ECG syndromes: teaching. manual / G.V. Dzyak, T.O. Pertseva, A.M. Vasylenko, V.A. Potabashniy, S.O. Sheiko. - Dnipropetrovsk: Porogy, 2008. - 207 p.
5. Lectures on hospital surgery in 3 volumes. Edited by Professor V.G. Mishalova. – Kyiv: "Askania", 2008.
6. Surgical diseases: Textbook / Ed. Prof. P.G. Kondratenka - Kh.: Fakt, 2006. - 816 p.
7. Surgery of children's age / Ed. Prof. V.I. dry - K: Zdorovya, 2002. - 704 p.
8. Practical skills in operative surgery: Education. manual / Yu.T. Akhtemychuk, V.P. Pishak, O.M. Slobodian, O.V. It was chirping. – Chernivtsi: City, 2005. – 152 p.
9. Surgical diseases: textbook / V.I. Bondarev, R.V. Bondarev, O.O. Vasiliev, I.E. Verkhuletskyi, E.O. Gerasimenko. - X.: Fakt, 2006. - 816 p.
10. Maidannyk V.G. Pediatrics. Textbook (2nd edition, revised and supplemented). - Kharkiv: Folio, 2002. - 1125 p.
11. Shabalov N.P. Children's diseases: Textbook. - S-Pb: Peter-Kom, 2002. - 1080 p.
12. Aryaev M.L. Neonatology. - Kyiv: "ADEF-Ukraine", 2006. - 754 p.

13. Volosovets A.P., Kryvopustov S.P., Manolova Z.P., Ershova I.B., Boychenko P.K. Laboratory studies in practical pediatrics - Luhansk, 2003. - 131 p.
14. Pediatrics: textbook / S.K. Tkachenko, R.I. Potsyurko, Yu.S. Korzhynskyi, A.I. Mostyuk, E.H. Tkachenko, M.P. Alfyorova. - 3rd ed., revised. and additional - K.: Health, 2006. – 771 p.
15. Intensive therapy in pediatrics: education. manual / S.M. Basmanov, G.I. Belebezyev, A.V. Belyaev, M.A. Georgiants, M.B. Dmitriev. - K.: Medicine, 2008. - 520 p.
16. Non-urgent conditions in obstetrics and gynecology / Ed. Stepankovskoi G.K.– K.: Health, 2000. – 672 p.
17. Zaporozhian V.M. Tsegelskyi M.R., Rozhkovska N.M. Obstetrics and gynecology. Textbook: in 2 volumes. T.P. - Odesa, 2005. - 420 p.
18. Anesthesiology and intensive therapy in pediatrics. Ed. J. Gregory: trans. English M.: 2007 - 1284 p.
19. Harrison's Principles of Internal Medicine, Twenty-First Edition (Vol.1 & Vol.2) : textbooks / A. Fauci, D. Kasper, J.L. Jameson, J. Loscalzo, S. Hauser. – McGraw-Hill, 2022. – 4384 p.
20. The Physician Assistant Student's Guide to the Clinical Year: Internal Medicine: textbook / D. Knetchel, D. Opacic. – Springer Publishing Company, 2019. – 368 p.
21. Oxford Handbook of Cardiac Nursing. THIRD EDITION edited by Kate Olson Visiting Lecturer Nursing Division City University of London UK and Health Professional Milton Keynes Community Cardiac Group Milton Keynes UK. 2021
22. USMLE Step 1: - 2022.- 713 pages.
23. USMLE Step 2 CK Lecture Notes 2017: Internal Medicine (Kaplan Test Prep). - 2016. - Published by Kaplan Medical. - 474 pages.

12. Additional Resources

1. Official website of DNMU
<https://dnmu.edu.ua/praktyka/>
2. National Library named after V.I. Vernadsky
[Національна бібліотека України імені В. І. Вернадського \(nbuv.gov.ua\)](http://nbuv.gov.ua)
3. The World Society of Emergency Surgery
[World Society of Emergency Surgery: studies and statistics \(wses.org.uk\)](http://www.wses.org.uk)
4. <http://www.gastro.org.guidelines/>
5. PubMed <http://pubmed.ncbi.nlm.nih.gov/>
6. Сайт IRCAD <http://websurg.com/>
7. <http://ginasthma.org/>
8. <http://goldcopd.org/>
9. State Expert Center of the Ministry of Health of Ukraine. Standards & Clinical Guidelines. Available at: [<https://www.dec.gov.ua/cat_mtd/galuzevi-standarti-ta-klinichni-nastanovi/>](https://www.dec.gov.ua/cat_mtd/galuzevi-standarti-ta-klinichni-nastanovi/)
10. Ministry of Health of Ukraine. Current Care Guidelines Duodecim Medical Publications Ltd. Available at: [<https://guidelines.moz.gov.ua/>](https://guidelines.moz.gov.ua/)