

MINISTRY OF HEALTH OF UKRAINE
Donetsk National Medical University

**Methodical recommendations for conducting industrial medical practice (polyclinic)
of 5th year students of the medical faculty of higher medical
education**

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Second Edition, Revised

Methodical recommendations are developed for the heads of medical industrial practice (polyclinic), which is passed by applicants for the second (master's) level of higher education in the specialty 222 "Medicine", 228 "Pediatrics" based on health care institutions. The purpose, objectives and program of the practice, materials on its organization and conduct, samples of the necessary reporting documentation are reflected. The publication contains a methodology for conducting the final modular control.

The material is presented in accordance with the Master's Training Standard 222 "Medicine", 228 "Pediatrics".

INTRODUCTION

Industrial practice of higher medical school graduates is conducted to test and consolidate the knowledge and practical skills acquired during the study of the main clinical and theoretical disciplines and their further deepening and improvement during work in medical and preventive institutions, as well as to familiarize them with the organization of medical and anti-epidemic work, with the basics of ethics and medical deontology, to consolidate the skills of sanitary and educational work.

It lays the foundations for students to study modern diagnostic technologies used in clinical practice, which involves the integration of teaching with various disciplines and the formation of skills in the application of knowledge from modern diagnostic methods in the process of further education and in professional activities.

1. Description of the educational discipline

The subject of the educational discipline ("Industrial medical practice", 5th year) is to consolidate knowledge and skills in the conditions of future professional activity, which are obtained in the process of studying the main theoretical and clinical disciplines. During practical training in a primary health care center (PHC), a family outpatient clinic, or a polyclinic's therapeutic office, students of higher education should learn the working methods of a family doctor and specialists in a therapeutic profile and gain practical experience in the areas of future professional activity.

The educational discipline "Industrial medical practice" for students of the 5th year of education consists of 4 meaningful modules: 1 - "Main duties and professional actions of a general practitioner - family doctor when providing assistance in a therapeutic direction"; 2 - "Basic duties and professional actions of a general practitioner - family doctor when providing surgical assistance"; 3 - "Main duties and professional actions of a general practitioner - family doctor when providing pediatric care" and 4 - "Main duties and professional actions of a general practitioner - family doctor when providing obstetric and gynaecological care" duration of 240 hours, which is 8 credits.

2. The purpose and tasks of the educational discipline

GOAL conducting "Medical production practice" to perform the duties of primary care doctors on the basis of outpatient and polyclinic health care institutions consists in achieving the main final goals defined in the educational and professional training programs of specialists in the specialty **222 "Medicine"** **228 "Pediatrics"**, educational and professional programs "Doctor", "Paediatrician".

Task:

- conduct clinical examination of patients and analyse their results;
- plan the sequence of examination of each patient depending on the features of the clinical course of the disease;
- analyse the results of basic laboratory and instrumental methods research;
- determine the leading pathological symptoms and syndromes in the most common diseases;
- carry out differential diagnosis and make a preliminary diagnosis of the most common diseases;
- define and interpret the general principles of treatment, rehabilitation and prevention of the most common therapeutic, surgical, pediatric and obstetric and gynaecological 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 medical care;
- familiarize yourself with the peculiarities of maintaining medical documentation in family

- medicine center/outpatient clinics and emergency medical teams;
- to be able to apply them in practice; master and apply moral-deontological principles of a general practitioner-family doctor and emergency physician.

As a result of industrial medical practice, the student should know:

- etiological and pathogenetic factors of diseases;
- classify and analyse a typical clinical picture;
- draw up an examination plan and analyse the data of laboratory and instrumental examinations in the typical course of the disease;
- demonstrate mastery of the principles of treatment, rehabilitation and disease prevention;
- establish a clinical diagnosis;
- to provide emergency assistance in case of major emergencies;
- carry out differential diagnosis and make a preliminary diagnosis in the case of a typical course of diseases;
- evaluate the prognosis of the disease;
- demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination.

Be able:

- collect anamnesis;
- examine the patient;
- to plan examination of the patient;
- interpret the results of laboratory and instrumental research;
- carry out differential diagnosis of the most common diseases with their typical course;
- determine the previous clinical diagnosis;
- determine therapeutic, surgical tactics of treatment;
- to determine the management tactics of a child patient;
- to determine the management tactics of obstetric and gynaecological patients;
- prescribe medical nutrition;
- provide emergency medical care;
- solve situational problems;
- keep medical records.

3. 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's 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 gynaecological care

- principles of organization of medical care for pregnant and healthy women and gynaecological 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 gynaecological diseases (neuroendocrine syndromes, pathological conditions in the perimenopausal period, benign tumours of female genital organs, background and precancerous diseases, malignant neoplasms). Providing medical care to gynaecological patients in the women's health center;
- oncoprophylaxis in gynaecology,
- check-ups of gynaecological patients in outpatient settings;
- application of principles of ethics and deontology in the practice of a family doctor.

4. Management of production practice.

The current educational activities of students are controlled by *the heads of practice from the departments* - teachers and *heads of industrial practice* from the clinical base (base supervisors).

In basic medical institutions, the general director of the medical institution is the general supervisor of production practice, and the heads of specialized departments are the direct supervisors. Managers of industrial practice analyse the work of applicants, taking into account their discipline (the applicant must not have missed days of practice), the quality of keeping a diary (justification and formulation of the diagnosis, determination of the examination and treatment plan), the quality of mastering the skills of clinical, laboratory and instrumental diagnostics, participation in the provision of emergency medical care, application of the principles of ethics and medical deontology in the practice of a doctor.

Activities of *the heads of practice from the departments*:

Before the beginning of practical training, the teacher must:

- familiarize yourself with the provisions of the program (syllabuses), methodical

- recommendations related to practice;
- carry out certification of the basic medical institution; obtain all the necessary documentation from the educational and methodical department (lists of education seekers, methodological recommendations, etc.);
- on the first day of industrial practice, a production meeting should be held with the participation of applicants, the general director, medical director, heads of departments, at which the following issues should be covered:
- characteristics of the basic medical institution;
- the purpose and program of industrial practice, the calendar plan of individual cycles and the work schedules of education seekers, appointment (election) of heads of groups;
- organization of household conditions.

The heads of practice from the departments in accordance with the educational programs, performs the following types of work:

- supervises each applicant's practice, his work, discipline, and living conditions;
- provides methodical assistance to applicants, defines tasks for each intern;
- checks the final level of learning practical skills according to the available lists;
- notes in the production practice diary which sections need to be completed by the acquirer;
- tests practical skills, the ability of students to interpret the results of clinical and laboratory-instrumental research;
- checks the quality of medical documentation; signs diaries of the applicant's production practice, provides medical and advisory assistance to the department's doctors;
- takes part in clinical conferences of a medical institution, conducts conversations with patients, reads lectures for a wide audience;
- conducts the final control, which is planned by the program in the relevant discipline;
- after the end of the internship, within three days, provides the ***head of practice from the University*** with a written report on the results of the practice.

Methodical guidance and final module control are carried out by teachers of DNMU departments. The final control of assimilation of the medical production practice module takes place on the last day of practice after its completion. The control of the module is carried out by teachers of specialized departments, responsible for production practice. The final control of the assimilation of the module is carried out in accordance with regulatory documents, additionally according to the schedule approved by the educational institution.

The direct supervisors of the industrial practice of students from the base must:

- familiarize yourself with the program, methodical recommendations on production practice in detail;
- to acquaint the students with the employees of the departments, working conditions (planning of premises, sanitary and hygienic regime, contingent of patients, supply of equipment and medicines, nature and volume of operative interventions, etc.);
- to constantly monitor the volume and level of mastery of practical skills by students of education;
- to attract applicants to active participation in holding clinical conferences, sanitary education of the population, public life of the staff of the medical institution;
- daily check the entries by the acquirers in the diaries of production practice;
- give an objective description and evaluate the work of each student.

5. Terms and deadlines of practice.

The duration of industrial practice for 5th year students is 20 working days. Practice consists of 4 cycles (internal medicine, surgery, pediatrics, obstetrics and gynaecology). The duration of cycles from each individual discipline is 5 days. The duration of the working day is 7 hours and 12 minutes. Student working hours are from 8:00 a.m. to 3:45 p.m. (with a 30-minute

lunch break). The sequence of practice in the therapeutic, surgical, pediatric departments of the polyclinic and women's consultation is determined by each educational institution and may change if necessary. Primary health care centers (primary health care centers) can act as production practice bases.

6. Legal responsibility of students during industrial practice

Since the applicant, during industrial practice, bears personal responsibility for the assigned work, its results on the same level as full-time employees (doctors and other medical workers), he must be fully aware of the legal significance of his actions and not allow violations on his part.

During practice, the applicant is fully subject to the rules of the internal work schedule of the medical institution. A student of education, as a doctor's assistant in a polyclinic department, should know that he bears disciplinary responsibility for violations of labour, educational, and industrial discipline. Disciplinary offenses of applicants during practice include failure to comply with the instructions and orders of the heads of medical institutions, instructions and orders of superior health care managers, absenteeism, tardiness, negligent attitude to one's duties. In addition, in case of causing material damage to the medical institution, the applicant-intern bears full or partial material responsibility, regardless of whether disciplinary sanctions were applied. Disciplinary sanctions include a reprimand, which during practice can be announced by the head of the medical institution by order, and in case of gross violations - expulsion from the university by order of the rector. Disciplinary punishment can be applied no later than one month from the day of its detection and no later than six months from the day of its implementation (Articles 147, 148 of the Code of Criminal Procedure of Ukraine).

Considering all of the above, during practice as a doctor's assistant in a polyclinic department, students must:

- provide timely and qualified medical assistance to patients at the level of the applicant's competence;
- to be attentive to patients' complaints, not to consider them serious enough;
- carefully collect anamnesis, qualitatively examine the patient in order to prevent false diagnosis and incorrect treatment;
- not to carry out medical manipulations without appropriate training and consultation with your immediate supervisor;
- qualitatively help to draw up medical documentation, do not forge it;
- not to conduct illegal experiments on patients. Knowledge and awareness of the legal consequences of his work as a physician's assistant provides an opportunity to improve the necessary practical skills for the successful use of them in further professional activities.

Students of education are obliged to undergo an internship:

- before the start of practice, receive from the educational and methodical department of the higher educational institution, consultations regarding the period of practice, processing of documentation, etc.;
- at the dean's office, get a referral to a basic institution for internship;
- arrive at the practice base on time;
- fully perform all tasks provided for by the practice program and the instructions of its supervisors;
- study and strictly follow the rules of labour protection, safety techniques and industrial sanitation;
- to comply with the rules of internal labour regulations in force in the medical institution;
- bear responsibility for assigned work and its results on a par with full-time employees;
- keep a practice diary, other reporting documentation provided for by the practice program;
- after the end of the internship, submit a written report to the head of the educational institution on the completion of all tasks provided for in the program, a completed and signed

diary.

7. List of skills and practical skills for the final examination

Content module 1. Basic duties and professional actions of a general practitioner-family doctor when providing assistance in a therapeutic direction

1. Conducting a survey and physical examination of patients with the main therapeutic diseases and evaluating the results of the examination:
 - cardiovascular system;
 - respiratory organs;
 - gastrointestinal tract;
 - urinary system;
 - musculoskeletal system;
 - endocrine system.
2. Clinical interpretation of the results of additional examination methods:
 - ECG;
 - Echocardiography;
 - Holter ECG monitoring;
 - Results of medication tests and tests with physical load in terms of assessing the state of the cardiovascular system;
 - Blood lipidograms;
 - Blood coagulograms;
 - General clinical blood analysis;
 - X-ray examination;
 - Indicators of external breathing function, spirometry;
 - Esophagogastroduodenoscopy;
 - CT scan, MRI and ultrasound of internal organs and joints;
 - General clinical analysis of urine;
 - Tests to detect diabetes.
3. ECG recording technique.
4. Measurement of blood pressure on the upper and lower extremities.
5. Establishing a preliminary diagnosis and prescribing a treatment scheme for diseases of internal organs in accordance with current medical care protocols approved by the Ministry of Health of Ukraine.

Content module 2. Basic duties and professional actions of a general practitioner practice of a family doctor when providing assistance in the surgical direction

1. Observation of surgical patients in the postoperative period in outpatient clinics conditions
2. Primary surgical treatment of wounds.
3. Applying and removing stitches, staples.
4. Applying an aseptic bandage to the wound.
5. Local anaesthesia (infiltration and conduction blockade).

Content module 3. Basic duties and professional actions of a general practitioner family doctor's practice in the field of pediatric care

1. Collection of general anamneses and its evaluation in children.
2. General examination, palpation, percussion and auscultation of children's organs and systems body.
3. Clinical interpretation and assessment of laboratory and instrumental results studies of children.
4. Assessment of age indicators of the child's physical and neuropsychological

development.

5. Justification and formulation of the clinical diagnosis.
6. Assessment of the severity of the child's condition.
7. Drawing up menus and calculating meals for children of the 1st year of life.
8. Immunization of children, calendar of vaccinations, contraindications and complications of vaccinations.
9. Calculation of doses of medical drugs in childhood.
10. Planning of dispensary observation and rehabilitation measures for children of different age groups.

Content module 4. Basic duties and professional actions of a general practitioner practice of a family doctor in the provision of obstetrics and gynaecology help

1. Assessment of anamnestic data regarding general and specific functions of the female body.
2. Carrying out an external obstetric examination, vaginal examination.
3. Diagnosis of anomalies of the bony pelvis, incorrect position and presentation of the fetus, macrosomia, late pregnancy.
4. Bimanual examination of gynaecological patients, examination of the cervix in mirrors.
5. Examination and palpation of the mammary glands.
6. Interpretation of results in pregnant and gynaecological 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 gynaecological patients.
9. Tactics of providing emergency care when a pregnant woman goes to a women's consultation (for obstetric bleeding during the second half of pregnancy, in the postpartum period).
10. Tactics of providing emergency care for bleeding in gynaecological patients: pathological conditions in the perimenopausal period, benign tumours of the female genital organs, background and precancerous diseases, malignant neoplasms).

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

1. Pulse oximetry.
2. Sanitation of the upper respiratory tract (manual and electric aspirator).
3. Dosed supply of oxygen.
4. Assessment of breathing rate.
5. Assessment of capillary filling.
6. Catheterization of a peripheral vein.
7. Use of the system for infusion therapy.
8. Blood pressure measurement.
9. Placing a tourniquet.
10. Putting on a cervical collar.
11. Applying tires (Kramera, 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 interior of the car).
13. Palpatory determination of emphysema of soft tissues, pathological mobility of rib fragments of the sternum, crepitation of fragments in case of chest injury.
14. Performing a temporary stoppage of arterial bleeding from wounds of the limbs, head,

and neck using finger compression of vessels, tourniquet, bandage, clamp.

Stopping of bleeding from a varicose node of the lower limb.

15. Catheterization of the urinary bladder with a soft catheter.

After completing the industrial practice, the student provides the practice manager with:

-a formal diary of production practice;

-consolidated digital report.

The applicant's personal documentation is a practice diary (Annex 1) in which he enters in chronological order all the data about the work performed: personally, or by participating in it. Based on the entries in the diary, a final report is drawn up for each discipline (Annexes 2-5), which summarizes the total number of performed manipulations, procedures, operations, the number of admitted patients, etc. The records of the work performed are checked and approved daily by the head of the practice from the base and 3 times a week by the head of the higher education institution.

At the end of each cycle of industrial practice, a description of the intern's work is recorded in the diary, which is signed by the chief physician (deputy chief physician for medical work) of the medical institution, managers from the base and higher education institution, and certified by the seal of the medical institution. All documents are certified by the chief physician (deputy chief physician, department head) with the signature and seal of the medical institution.

In case of internship in another country, the student provides a certificate of the established model.

In the process of work, the student of education draws up an individual work schedule for each cycle, in which he details the work performed.

Annex 1.

Diary of HDL in internal medicine

(from surgery, pediatrics, obstetrics)

Student of the _____ faculty _____, Course __, group _____

Practice term: from _____ 20 _ years to _____ 20 _ years.

Place of internship: _____ city

Hospital _____

Base manager _____

General director _____

(signature, seal)

Number, time	Content of the completed work	Completed skill
8.00-9.00	Organizational meetings. Participation in visiting patients with the head of the department.	
9.00-12.00	Curation in the department of 5 patients. Ivanov, 60 years of old, Ds: Angina pectoris, III FC. Post-myocardial infarction. Examination: Treatment:	Physical examination of 5. Patients (questioning, examination, blood pressure measurement) Completion of medical documentation of incoming patients. Evaluation of clinical, Biochemical and instrumental studies.
12.00-14.00	ECG analysis under the guidance of a doctor.	ECG registration and analysis
14.00-15.00	Participation in conducting FGDS	Examination of the mucous membrane of the stomach
	But others	

8. Control of educational achievements

Methods and means of standardized assessment current educational activities and final control

Assessment of independent practical work of students of education on practice bases and final control (FC) are carried out on the last day of practice. FC is accepted by the commission (according to the order of the rector of DNMU) consisting of the head of practice from the University and employees of specialized departments.

The grade for the module is defined as the sum of the grades of the current control for the content modules (in points), which is assigned during the assessment of practical skills in accordance with the list determined by the practice program.

The maximum number of points awarded to students for learning a module is 200, including 120 points (60%) for ongoing activities (content modules), 80 points (40%) based on the results of the final control.

Evaluation of the individual work of the student of education

Points for individual tasks are awarded to the student only under the conditions of their successful completion and defence. The grade for individual independent work is calculated as the average score when mastering the entire list of skills and abilities of each of the four content modules: internal medicine, surgery, obstetrics, pediatrics. (see annexes 2-5). Arithmetic average of evaluations of content modules is converted into points (in accordance with the KSM evaluation instructions). The total number of points for SRS varies from 72 to 120 points. Students who have completed the industrial practice program, have properly prepared reporting documents and received at least 72 points for their current activity are admitted to the final inspection.

Evaluation criteria for 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.

[Regulations on the Organization and Conduct of Assessment Procedures, Make-up of Missed Classes, and Improvement of Students' Academic Ranking • Donetsk National Medical University \(dnmu.edu.ua\)](http://dnmu.edu.ua)

The final control for the protection of practice is standardized and is presented as an arithmetic mean score (according to a 4-point system) considering the following stages:

- 1) evaluation of the results of the knowledge, skills and practical skills of the students of education by the practice base based on evaluations from the diary and production characteristics (see annexes 2-5);
- 2) assessment of the correctness of the management and preparation of the reporting documentation of the students of education (diary, final report);
- 3) the results of the knowledge assessment of the students during the interview for the defence of practice (oral interview, use of tests and/or situational tasks) and practical training.

The total number of points scored by the student in the discipline is defined as the average score for the current educational activity, translated on a 200-point scale (in accordance with the KSM assessment instructions).

The regulations for conducting FCs provide for the assimilation and demonstration of skills and abilities in accordance with the program on industrial medical practice of students of

the 4th year from four content modules: internal medicine, surgery, obstetrics, pediatrics (on dummies).

According to the results of FC, the student receives four grades: in internal medicine, surgery, pediatrics, obstetrics. From these four grades, the average grade for FC in industrial medical practice is calculated. The grade point average is then converted into FC points. The final module test is considered to be passed if the student scored at least 60% of the maximum number of points for FC (that is, at least 48 points, this number of ECTS points is equal to the sum of traditional grades "3").

Evaluation on a multi-point (200) scale	Evaluation on a four-point scale
From 180 to 200 points	"5"
From 150 to 179	"4"
From 120 to 149	"3"
Below 120	"2"

A sample of a digital report based on the results of production practice.

Annex 2.

General digital report on the results of passing the practice in internal medicine

Student of education _____ 5 course of medical faculty No. ____, group _____
based on CPMSD No. _____ city _____

List of skills and abilities	Number of skills	Score in points
1.Reception of patients at the Central Medical Center; Palpation: chest, atrial region, lymph nodes, thyroid gland, abdomen, blood vessels, determination of pulse; percussion of lungs, heart, abdomen; 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 reception department; (work in the office – grade 3; work in the department grade 4, duty in the department – grade 5)	1	3-5
3.Blood pressure measurement (on the upper and lower extremities)	30–40–50	3-5
4. Evaluation of the data of laboratory research methods (general clinical blood analysis, acute phase blood parameters, total protein and fractions, blood transaminases, coagulogram, laboratory markers of myocardial necrosis, blood lipid spectrum, creatinine, blood electrolytes, urea, blood uric acid, indicators of immune status, general clinical analysis of urine, analysis of urine according to Nechiporenko and Zimnitskyi, data of microbiological examination of urine, etc.)	30–40–50	3-5
5.ECG registration and analysis	10–20–30	3-5
6.Analysis of echocardiography data	3–6–10	3-5
7.Data analysis of radiographs of chest organs, gastrointestinal tract, joints, spine, CT, MRI and angiography	8–10–12	3-5
8.Analysis of ultrasound data of abdominal organs and joints	8–12–15	3-5
9.Participation in the provision of urgent care for acute cardiovascular failure, hypertensive crisis, paroxysmal heart rhythm disorders, MES syndrome, pulmonary embolism, attack of gouty arthritis, etc.	1–3–5	3-5
GPA		72-120

Teacher's signature _____

Annex 3.**General digital report on the results of passing the practice in surgery**

Student of education _____ 5 course of medical faculty No. ____, group _____
 based on CPMSD No. _____ city _____

List of skills and abilities	Number skills	Score in points
1. Admission of patients to the Central Medical Center; (Palpation: chest, joints, lymph nodes, thyroid gland, mammary glands, abdomen, vessels; percussion of lungs, abdomen; auscultation of lungs, vessels and abdomen)	20–30–40	3-5
2. Shifting in the emergency room of the CPMSD or reception department, trauma center; (work in the office – grade 3; work in the reception department or trauma center grade 4, on duty in the department – grade 5)	1	3-5
3. Evaluation of clinical (general blood and urine) and biochemical blood tests (bilirubin and its fractions, blood proteins, amylase, blood electrolytes, coagulogram, etc.) in the surgical clinic	30–40–50	3-5
4. Evaluation of instrumental research data (radiography of the chest and abdominal cavity, aortography, ultrasound of the abdominal cavity, Doppler ultrasonography of arteries and veins, CT scan, endoscopy) in surgical diseases	8–12–15	3-5
5. Peculiarities of assisting in the dressing room: local anaesthesia, application and removal of sutures	1–2–3	3-5
6. Peculiarities of assisting in the dressing room: primary surgical treatment of wounds, carrying out dressings, pleural punctures and joint punctures, etc.	1–2–3	3-5
7. Assisting in the urological office: prostate palpation, bladder catheterization, cystoscopy	1–2–3	3-5
8. Participation in transport immobilization, application of plaster casts	1–2–3	3-5
9. Participation in diagnosis and emergency care for stab wounds, spontaneous pneumothorax, traumatic shock, bleeding, phlebothrombosis, arterial thrombosis, etc.	1–2–3	3-5
GPA		72-120

Teacher's signature _____

Annex 4.**General digital report on the results of passing the practice in Pediatrics**

Student of education _____ 5 course of medical faculty No. ____, group _____
 based on CPMSD No. _____ city _____

List of skills and abilities	Number of skills	Score in points
1. Examination of healthy and sick children in the Central Primary School. (Palpation of the chest, atrial region, joints, lymph nodes, thyroid gland, abdomen, vessels, determination of pulse; percussion of the lungs, heart, abdomen; auscultation of the lungs, heart, vessels, and abdomen)	20–25–30	3-5
2. Shifting in the emergency room at the Central Medical Center or the reception department of a hospital; (work in the office - grade 3; duty in the office grade 4, duty in the reception department - grade 5)	1	3-5
3. Blood pressure measurement on arms and legs	10–15–20	3-5
4. Evaluation of data from laboratory methods of examination: clinical (general analysis of blood, urine, faeces), 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 immunoassay, general analysis of sputum and cerebrospinal fluid	20–25–30	3-5
5. ECG registration and analysis	4–6–10	3-5
6. Analysis of echocardiography data	4–6–10	3-5
7. Analysis of X-ray examination data of chest organs, gastrointestinal tract, joints, CT scan	8–10–12	3-5
8. Analysis of abdominal ultrasound data	8–10–15	3-5
9. Participation in the provision of emergency care to children (convulsions and hyperthermic syndrome, collapse, pulmonary oedema, bronchospasm, asthmatic status, acute cardiovascular failure, infectious-toxic shock, acute renal failure, complications of vaccination and medical therapy: urticaria, Quincke's enema, anaphylactic shock; ketoacidotic coma, hypoglycaemic coma, bleeding, etc.)	1–3–5	3-5
GPA		72-120

Teacher's signature _____

Annex 5.

General digital report on the results of passing the practice in obstetrics and gynaecology

Student of education _____ 5 course of medical faculty No. ____, group _____
based on CPMSD No. _____ city _____

List of skills and abilities	Number of skills	Score 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 gynaecological patients	4–6–10	3-5

3.Examination of the cervix in mirrors	4–6–10	3-5
4.Interpretation of blood and urine tests	10–15–20	3-5
5.Assessment of the results of smears on the degree of cleanliness of the vagina, the results of a cytological examination	10–15–20	3-5
6.Analysis of ultrasound data of a pregnant woman and fetus. Analysis of pelvic ultrasound data in gynaecological patients	10–20–30	3-5
7.Analysis of hormonal and immunological research data in pregnant and gynaecological patients	5–10–15	3-5
8.Participation in the tactics of providing emergency care when a pregnant / gynaecological patient goes to a women's consultation (obstetric bleeding during the 2nd half of pregnancy, in the postpartum period; bleeding in gynaecological diseases: pathological conditions in the perimenopausal period, benign tumours 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
GPA		72-120

Teacher's signature _____

9. Recommended Books

Core literature

1. Amosova, K. M., et al. (2019a). *Internal medicine: Textbook for English-speaking students of higher medical educational establishments* (Pt. 1: Cardiology. Rheumatology. Haematology). M. A. Stanislavchuk & V. K. Sierkova (Eds.). Nova Knyha.
2. Amosova, K. M., et al. (2019b). *Internal medicine: Textbook for English-speaking students of higher medical educational establishments* (Pt. 2: Pulmonology. Gastroenterology. Nephrology. Diseases of the internal organs in countries with hot climate). M. A. Stanislavchuk & V. K. Sierkova (Eds.). Nova Knyha.
3. Babak, O. Ya., Bilovol, O. M., & Zhelezniakova, N. M. (2018). *Internal medicine: Critical care: Textbook*. O. Ya. Babak & O. M. Bilovol (Eds.). AUS Medicine Publishing.
4. Gromova, A. M., & Nesterenko, L. A. (Eds.). (2016). *Modern approaches to the management of childbirth and the postpartum period in pathological pregnancy*.
5. Hryshchenko, V. I., Shcherbina, M. O., & Ventskivskyi, B. M. (2020). *Obstetrics and gynecology: In 2 books. Book 1. Obstetrics: A textbook* (4th ed.). Medicine.
6. Likhachev, V. K. (2018). *Gynecology: A guide for doctors*. New Book.
7. Seredyuk, N. M., Vakaliuk, I. P., & Yatsyshyn, R. I. (2019). *Internal medicine: Textbook in 2 books. Book 1. Diseases of the cardiovascular and respiratory systems*. AUS Medicine Publishing.
8. Seredyuk, N. M., Vakaliuk, I. P., & Yatsyshyn, R. I. (2020). *Internal medicine: Textbook in 2 books. Book 2. Diseases of the digestive system, kidney, rheumatic and hematological diseases*. AUS Medicine Publishing.

Supplementary literature

1. Akhtemychuk, Yu. T., Pishak, V. P., Slobodian, O. M., & It was chirping, O. V. (2005). *Practical skills in operative surgery: Educational manual*. City.
2. Aryaev, M. L. (2006). *Neonatology*. ADEF-Ukraine.
3. Basmanov, S. M., Belebezyev, G. I., Belyaev, A. V., Georgiants, M. A., & Dmitriev, M. B. (2008). *Intensive therapy in pediatrics: Educational manual*. Medicine.
4. Bondarev, V. I., Bondarev, R. V., Vasiliev, O. O., Verkhuletskyi, I. E., & Gerasimenko, E. O. (2006). *Surgical diseases: Textbook*. Fakt.
5. Dzyak, G. V., Pertseva, T. O., Vasylenko, A. M., Potabashniy, V. A., & Sheiko, S. O. (2008). *Clinical-ECG syndromes: Teaching manual*. Porogy.
6. Fauci, A., Kasper, D., Jameson, J. L., Loscalzo, J., & Hauser, S. (2022). *Harrison's principles of internal medicine* (21st ed., Vols. 1–2). McGraw-Hill.
7. Gregory, J. (Ed.). (2007). *Anesthesiology and intensive therapy in pediatrics* (Translated from English).
8. Ivanov, D. D., & Cake, O. M. (2006). *Nephrology in the practice of a family doctor: Training manual*.
9. Knetchel, D., & Opacic, D. (2019). *The physician assistant student's guide to the clinical year: Internal medicine*. Springer Publishing Company.
10. Kondratenko, P. G. (Ed.). (2006). *Surgical diseases: Textbook*. Fakt.
11. Lysenko, G. I., Yashchenko, O. B., Mavrodiy, V. M., Danyliuk, S. V., & Resin, O. P. (2005). *Chronic obstructive pulmonary diseases in the practice of a family doctor: Educational manual*. Book.
12. Maidannyk, V. G. (2002). *Pediatrics: Textbook* (2nd ed., revised and supplemented). Folio.
13. Mishalov, V. G. (Ed.). (2008). *Lectures on hospital surgery* (Vols. 1–3). Askania.
14. Olson, K. (Ed.). (2021). *Oxford handbook of cardiac nursing* (3rd ed.).
15. Shabalov, N. P. (2002). *Children's diseases: Textbook*. Peter-Kom.
16. Stepankovskoi, G. K. (Ed.). (2000). *Non-urgent conditions in obstetrics and gynecology*. Health.
17. Tkachenko, S. K., Potsyurko, R. I., Korzhynskyi, Yu. S., Mostyuk, A. I., Tkachenko, E. H., & Alfiorova, M. P. (2006). *Pediatrics: Textbook* (3rd ed., revised and supplemented). Health.
18. Uncle, O. I., Bagrii, A. E., Hnylytska, V. B., Khristulenko, A. L., & Karpenko, O. I. (2006). *Arterial hypertension in modern clinical practice: Educational manual*. Weber.
19. *USMLE Step 1*. (2022).
20. *USMLE Step 2 CK lecture notes 2017: Internal medicine*. (2016). Kaplan Medical.
21. Volosovets, A. P., Kryvopustov, S. P., Manolova, Z. P., Ershova, I. B., & Boychenko, P. K. (2003). *Laboratory studies in practical pediatrics*.
22. Zaporozhian, V. M., Tsegelskyi, M. R., & Rozhkovska, N. M. (2005). *Obstetrics and gynecology: Textbook in 2 volumes*.

10. 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 \(nbuv.gov.ua\)](https://nbuv.gov.ua)
3. The World Society of Emergency Surgery
[World Society of Emergency Surgery: studies and statistics \(wses.org.uk\)](https://wses.org.uk)
4. PubMed <http://pubmed.ncbi.nlm.nih.gov/>

5. 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/>
6. Ministry of Health of Ukraine. Current Care Guidelines Duodecim Medical Publications Ltd. Available at: <<https://guidelines.moz.gov.ua/>>