

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

Petro Mohyla Black Sea National University

Medical Institute

Department of Therapeutic and Surgical Disciplines

"APPROVE "

The first vice-rector

Ishchenko NM

" " \_\_\_\_\_ 2021

CURRICULUM WORK PROGRAM

MEDICAL PRACTICE

field of knowledge 22 "Health care"

(code and name of the field of knowledge)

Specialty 222 "Medicine" - the second (master's) level

(code and name of the specialty)

IV course

Developer  
Head of the Department of  
Developer  
Guarantor of the educational  
program  
Director of the Institute  
Chief of NMV

Zack M.Yu.

Zack M.Yu.

Klymenko MO

Grischenko GV

Shkirchak SI



## 1. Description of the discipline

Characteristic	Characteristics of the discipline	
Name of discipline	medical practice	
Branch of knowledge	22 "Health care"	
Specialty	222 "Medicine"	
Specialization (if any)		
Educational program	Medicine	
Level of higher education	Master	
Discipline status	Normative	
Curriculum	4th	
Academic year	2021 -2022	
Semester numbers:	Full-time	Correspondence form
	8th	
Total number of ECTS credits / hours	5 credit s (5.0) / 150 hours	
Course structure: - lectures - practical classes - hours of independent work of students	Full-time	Correspondence form
	- 40 110	
Percentage of classroom load	20 %	
Language of instruction		
Form of intermediate control (if any)		
Form of final control	Differentiated test - 8th semester	

### Purpose, tasks and planned learning outcomes

**The purpose of** teaching / studying the discipline "Industrial Medical Practice " is to consolidate the knowledge and practical skills acquired in the study of basic clinical and theoretical disciplines and their further deepening and improvement while working in treatment and prevention facilities, as well as acquaintance with the work of doctors in the future. activities on the basis of district, city and regional treatment and prevention facilities.

**Objectives of study:** the acquisition by the student of competencies, knowledge, skills and abilities to carry out professional activities in the specialty of:

- 1) mastering the basic principles of examination of the patient (therapeutic, surgical , gynecological and pediatric profile) ;
- 2) methodically correct questioning and examination of patients with therapeutic, surgical, obstetric - gynecological and pediatric pathology ;
- 3) interpretation of the relationship of the patient's complaints and the implementation of a preliminary assessment of the affected body system;
- 4) generalization of the results of questioning and examination of patients and distinguishing on their basis the main symptoms and syndromes;
- 5) analysis of the results of laboratory and instrumental studies of the affected systems;
- 6) generalization of the results of examination of the affected systems and identification of the main symptoms and syndromes of its defeat to make a correct diagnosis;

7) drawing up a plan for examination of the patient, interpretation of the results of laboratory and instrumental studies in the most common diseases in the clinic ( internal medicine , surgery, obstetrics - gynecology and pediatrics) and their complications.

**Prerequisites for studying the discipline (interdisciplinary links).** In a robnycha medical practice as an academic discipline :

a) is based on students' understanding of the basic principles and knowledge of theoretical medicine and previous clinical disciplines and integrates with these disciplines;

b) establish clinical Practical basis for podalshoh at master students of clinical disciplines (internal medicine, pediatrics, surgery, obstetrics and gynecology, infectious diseases, general practice (family medicine), palliative medicine, etc. ), providing instruction as integration with key clinical disciplines, and the acquisition of deep knowledge of medical practice , the ability to use this knowledge in the process of further training and in the professional activities of the doctor;

c) forms the practical foundations of clinical thinking;

d) provides an opportunity to conduct a practical analysis of clinical situations for further diagnosis, treatment, prevention of diseases.

**Expected learning outcomes. As a result of studying the discipline, students have:**

- conduct surveys and physical examinations of patients and analyze the results ,
- to plan the scheme of the clinical course of the disease,
- analyze the results of laboratory and instrumental research methods,
- identify 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,
- interpret the general principles of treatment, rehabilitation and prevention of the most common diseases,
- participate in the provision of emergency care in case of emergencies,
- perform the necessary medical manipulations, medical documentation
- to acquire knowledge of moral and deontological principles in the work of a medical specialist and the principles of professional subordination in the clinic.

**According to the requirements of the educational and professional program, students must:**

***KNOW :***

- Basic rules of questioning and examination of the patient.
- Physical and instrumental methods for research in a therapeutic hospital.
- Physical and instrumental methods of examination of a surgical patient.
- The main research methods of obstetric and gynecological patients.
- The main methods of research of a pediatric patient

***BE ABLE:***

• to solve situational problems with the definition of causal factors, risk factors, the main link of pathogenesis, stages of development, mechanisms of development of clinical manifestations, options for completion, with typical pathological processes and the most common diseases;

• schematically reflect the mechanisms of pathogenesis and clinical manifestations of diseases;

• analyze and interpret the results of blood, urine, lipidograms, electrocardiograms, spiograms, immunograms, hormonal background;

- identify regenerative, degenerative forms and forms of pathological regeneration of "red" and "white" blood cells in peripheral blood smears; interpret their presence or absence in the blood;
- on the basis of the results of laboratory and instrumental research to assess the state of functioning of organs and systems of the body in diseases;
- to analyze different options for the development of causal relationships in the pathogenesis of diseases;
- be able to identify and record the leading clinical syndrome, its main link and clinical signs;
- make an informed decision for the appointment of laboratory and / or instrumental examination;

***MOTHER OF COMPETENCE:***

- on the application of knowledge in medicine for the diagnosis, treatment of diseases of the internal organs, the promotion of a healthy lifestyle, as well as for the prevention of the occurrence and development of diseases;
- on the main promising research methods in medicine for early diagnosis and treatment of the most common diseases of the internal organs according to unified medical protocols.

The developed program corresponds to the ***educational-professional program (OPP)*** and is focused on the formation of ***competencies:***

***general (LC) - LC3 - LC 5, LC8 OPP :***

OK52	Industrial medical practice in the therapeutic department of the hospital
OK53	Industrial medical practice in the surgical department of the hospital
OK54	Industrial medical practice in the maternity ward of the hospital
OK55	Industrial medical practice in the children's department of the hospital

ZK3. Knowledge and understanding of the subject area and understanding

ZK4. Ability to adapt and act in a new situation.

ZK5. Ability to make an informed decision; work in a team; interpersonal skills.

ZK8. Definiteness and persistence in terms of tasks and responsibilities.

***professional (FC) - FC1 - FC7, FC 11 - FC 13, FC 16, FC 18 OPP:***

- FC1. Patient interviewing skills.

- FC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

- FC3. Ability to establish a preliminary and clinical diagnosis of the disease.

- ФK4. Ability to determine the required mode of work and rest in the treatment of diseases.

- ФK5. Ability to determine the nature of nutrition in the treatment of diseases.

- FC6. Ability to determine the principles and nature of disease treatment.

- ФK7. Ability to diagnose emergencies.

- ФK11. Skills to perform medical manipulations.

- FC 12. Ability to determine the tactics of physiological pregnancy, physiological childbirth and the postpartum period.

- ФK13. Family planning counseling skills.

- ФK16. Ability to determine the tactics of management of persons subject to dispensary supervision.

- ФK18. Ability to keep medical records.

**Program learning outcomes**

**PRN 2-PRN3, PRN 8, PRN 11, PRN 13- PRN18, PRN 22, PRN25, PRN 28, PRN30, PRN32, PRN33, PRN 35, PRN41**

- **PRN 2** . Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex problems and problems that arise in professional activities. Clear and unambiguous communication of one's own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

- **PRN3** . Have deep knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. Ability to effectively form a communication strategy in professional activities. To be responsible for professional development, ability to further professional training with a high level of autonomy.

- **PRN 8** . Know the responsibilities and ways to perform the tasks. Be able to define the purpose and tasks to be persistent and honest in the performance of duties. Establish interpersonal relationships to effectively perform tasks and responsibilities. Responsible for the quality of the tasks.

- **PRN 11** : Collect data on patient complaints, medical history, life history (including professional history), in a health care facility, its unit or at the patient's home, using the results of the interview with the patient, according to the standard scheme of the patient. Under any circumstances (in a health care facility, its unit, at the patient's home , etc.), using knowledge about the person, his organs and systems, according to certain algorithms:

- collect information about the general condition of the patient (consciousness, constitution) and appearance (examination of the skin, subcutaneous fat layer, palpation of lymph nodes, thyroid and mammary glands);

assess the psychomotor and physical development of the child;

- examine the condition of the cardiovascular system (examination and palpation of the heart and superficial vessels, determination of percussion boundaries of the heart and blood vessels, auscultation of the heart and blood vessels);

- examine the condition of the respiratory organs (examination of the chest and upper respiratory tract, palpation of the chest, percussion and auscultation of the lungs);

- examine the condition of the abdominal organs (examination of the abdomen, palpation and percussion of the intestines, stomach, liver, spleen, palpation of the pancreas, kidneys, pelvic organs, finger examination of the rectum);

examine the condition of the musculoskeletal system (examination and palpation);

examine the state of the nervous system;

examine the condition of the genitourinary system;

- assess the state of fetal development according to the calculation of fetal weight and auscultation of its heartbeat.

- **PRN 13**. In the conditions of a health care institution, its subdivision and among the attached population:

be able to identify and record the leading clinical symptom or syndrome

(according to list 1) by making an informed decision, using previous patient history, physical examination data, knowledge of the person, his organs and systems, adhering to relevant ethical and legal norms.

Be able to establish the most probable or syndromic diagnosis of the disease (according to list 2) by making an informed decision, by comparing with standards, using previous patient history and examination of the patient, based on the leading clinical symptom or syndrome, using knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

- **PRN 14.** In the conditions of a health care institution, its subdivision:

- Assign a laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, based on the most probable or syndromic diagnosis, according to standard schemes, using knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms.

- Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient, knowledge of the person, his organs and systems, adhering to ethical and legal norms.

- Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis, using the most probable or syndromic diagnosis, laboratory and instrumental examination data, conclusions of differential diagnosis, knowledge of the person, his organs and systems, adhering to relevant ethical and legal norms.

- **PRN 15.** Determine the necessary mode of work and rest in the treatment of the disease (according to list 2), in a health care facility, at home of the patient and at the stages of medical evacuation, including in the field, on the basis of

preliminary clinical diagnosis, using knowledge of man, his organs and systems, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

- **Poland 16** . Determine the necessary medical nutrition in the treatment of the disease (according to list 2), in a health care facility, at the patient's home and at the stages of medical evacuation, including in the field on the basis of preliminary clinical diagnosis, using knowledge about the person, his bodies and systems, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

- **Poland 17** . Determine the nature of treatment (conservative, operative) of the disease (according to list 2), in a health care facility, at home at the patient and at the stages of medical evacuation, including in the field on the basis of a previous clinical diagnosis, using knowledge about the person , its bodies and systems, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes. Determine the principles of treatment of the disease (according to list 2), in a health care facility, at the patient's home and at the stages of medical evacuation, including field conditions, based on a preliminary clinical diagnosis, using knowledge about the person, his organs and systems , adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

- **Poland 18** . Establish a diagnosis (according to list 3) by making an informed decision and assessing the human condition, under any circumstances (at home, on the street, health care facility, its units), including in an emergency, in the field , in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

- **PRN 22** . Perform medical manipulations (according to list 5) in a medical institution, at home or at work on the basis of previous clinical diagnosis and / or indicators of the patient's condition, using knowledge of the person, his organs and systems, adhering to relevant ethical and legal norms, by making informed decisions and using standard techniques.

- **PRN 25**. To form, in the conditions of a health care institution, its division on production, using the generalized procedure of an assessment of a state of human health, knowledge of the person, its bodies and systems, adhering to the corresponding ethical and legal norms, by acceptance of the reasonable decision, among the fixed contingent of the population:

dispensary groups of patients;

groups of healthy people subject to dispensary supervision (newborns, children, adolescents, pregnant women, representatives of professions that must undergo a mandatory dispensary examination).

- **PRN 28**. Organize secondary and tertiary prevention measures among the assigned population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care), knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms, by making an informed decision, in the conditions of a health care institution, in particular:

to form groups of dispensary supervision;

to organize medical and health-improving measures differentiated from the group of medical examination.

- **PRN 30**. To be carried out in the conditions of a health care institution, its subdivision:

• detection and early diagnosis of infectious diseases (according to list 2);

\* primary anti-epidemic measures in the center of an infectious disease.

- **PRN 32** . In the health care facility, or at the patient's home on the basis of the obtained data on the patient's health, using standard schemes, using

knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms, by making an informed decision:

determine the tactics of examination and secondary prevention of patients subject to dispensary supervision;

determine the tactics of examination and primary prevention of healthy individuals subject to dispensary supervision;

calculate and prescribe the necessary food for children in the first year of life.

- **PRN 33** . To determine the presence and degree of restrictions on life, type, degree and duration of disability with the issuance of relevant documents in a health care institution on the basis of data on the disease and its course, features of professional activity.

- **PRN 35** . On the territory of service according to standard methods of descriptive, analytical epidemiological and medical-statistical researches: conduct screening for the most important non-communicable diseases;

evaluate in the dynamics and in comparison with the average static data indicators of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators;

identify risk factors for the occurrence and course of diseases; to form risk groups of the population.

- **PRN 41**. In the conditions of a health care institution or its subdivision according to standard methods:

select and use unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine;

participate in the development of local protocols for medical care;

control the quality of medical care on the basis of statistical data, expert evaluation and sociological research data using indicators of structure, process and results of activities;

- identify factors that hinder the improvement of the quality and safety of medical care.

### **3. The program of the discipline**

The educational process is organized according to the European Credit Transfer and Accumulation System (ECTS).

The curriculum consists of two blocks:



## **BLOCK 1. MANUFACTURING MEDICAL PRACTICE IN THERAPEUTIC AND SURGICAL DEPARTMENTS OF HOSPITAL IN**

### **SECTIONS:**

1. Industrial medical practice in the therapeutic department of the hospital (37 / 1,25)
2. Industrial medical practice in the surgical department of the hospital (38/1 , 25)

## **BLOCK 2. MANUFACTURING MEDICAL PRACTICE IN THE MATERNITY AND PEDIATRIC HOSPITAL DEPARTMENTS**

### **SECTIONS:**

3. Industrial medical practice in the maternity ward of the hospital (38 / 1,25)
4. Industrial medicine practice in the pediatric department of the hospital (37 / 1,2 5)

## **BLOCK 1. MANUFACTURING MEDICAL PRACTICE IN THERAPEUTIC AND CHRISTMAS DEPARTMENTS OF THE HOSPITAL**

### **Contents Chapter 1: Production medical practice in the therapeutic department of a hospital in**

#### *Specific goals:*

- conduct surveys and physical examinations of patients and analyze the results;
- to plan the scheme to a linear course of a disease;
- analyze the results of laboratory and instrumental research methods,
- identify the leading pathological symptoms and syndromes in the most common diseases;
- to carry out differential diagnostics and to make the preliminary diagnosis of the most widespread diseases;
- interpret the general principles of treatment, rehabilitation and prevention of the most common diseases;
- participate in the provision of emergency assistance in case of emergencies;
- perform the necessary medical manipulations;
- to acquire knowledge of moral and deontological principles of a medical specialist and the principles of professional subordination in the clinic.

### **Topic 1. Methods of physical examination of patients and evaluation of examination results .**

Subjective and objective study of the cardiovascular system ; Subjective and objective examination of the respiratory system ; Subjective and objective study of the gastrointestinal tract ;

Subjective and objective study of the urinary system ; Subjective and objective study of the musculoskeletal system ; Subjective and objective study of the endocrine system .

## **Topic 2. Methods of conducting and interpreting instrumental studies of the cardiovascular system .**

Measurement of blood pressure in the upper and lower extremities, removal Methods of recording and decoding ECG, interpretation of the conclusion of Holter monitoring of ECG and bicycle ergometry

## **Topic 3. Laboratory tests in a therapeutic hospital**

With General notes urinalysis and blood and biochemical blood. Assessment of general and biochemical analysis of blood, troponin test, lipidogram, coagulogram, urine study by Nechiporenko, analysis by Zymnysky, analysis by Nechiporenko .

## **Topic 4. Methods of conducting and interpreting instrumental studies of the urinary system**

Laboratory and instrumental methods of kidney research. Methods and interpretation of radiological, radioisotope and ultrasound research methods.

## **Topic 5. Methods of conducting and interpreting instrumental studies of the respiratory system**

Laboratory and instrumental methods of lung research. Methods and interpretation of radiological, radioisotope and ultrasound research methods.

## **Topic 6. Methods of conducting and interpreting instrumental studies of the digestive system**

Laboratory and instrumental methods of gastrointestinal research. Methods and interpretation of radiological, radioisotope and ultrasound research methods.

## **Topic 7. Manipulation therapy**

P ostanovka allergic samples, determining December yn blood and Rh - factor. Methods of intravenous, intravenous, intravenous, intravenous injections.

## **Contents Chapter 2. The production of medicines Arskii practice in the surgical department of a hospital in**

### *K onkretni objectives :*

- conduct surveys and physical examinations of patients and analyze their results in the clinic of surgical diseases;
- identify the leading pathological symptoms and syndromes in the most common surgical diseases;
- perform differential diagnosis and establish a preliminary diagnosis of major surgical diseases in an inpatient setting;
- analyze and interpret the results of basic laboratory, instrumental and radiological research methods in hospital;
- determine the tactics of treatment of major surgical diseases in an inpatient setting;
- master the basic responsibilities and professional actions of a surgeon while working in the surgical department of the hospital;
- provide emergency care for emergencies in surgical diseases;
- be able to apply the principles of ethics and deontology in the practice of a surgeon of the surgical department of the hospital.

## **Topic 8. Principles of organization of planned and emergency surgical care in Ukraine.**

Assimilation of the principles of ethics and deontology in the practice of the doctor of the surgical department of the hospital. Acquaintance with the work and structural units of the hospital

**Topic 9. Clinical, laboratory and instrumental diagnosis and tactics of treatment of patients in emergency abdominal surgery.**

Acute urgent pathology of the gastrointestinal tract (acute appendicitis, acute pancreatitis, perforated gastric ulcer, acute cholecystitis, acute intestinal obstruction). Clinical, laboratory-instrumental diagnostics and tactics of treatment of patients.

**Topic 10. Clinical, laboratory and instrumental diagnosis and treatment tactics in planned abdominal surgery.**

Planned abdominal surgery (nonspecific ulcerative colitis, Crohn's disease, chronic pancreatitis, gastric ulcer, chronic cholecystitis, cholecystitis, intestinal obstruction). Clinical, laboratory-instrumental diagnostics and tactics of treatment of patients.

**Topic 11. Provision of emergency medical care for urgent surgical diseases.**

Organization of emergency care in a surgical hospital. Blood substitutes (classification, indications and contraindications). Bleeding (classification, tactics of the doctor). Determination of blood groups and rhesus factor.

**Topic 12 . Providing planned surgical care in the hospital.**

Organization of planned care in a surgical hospital.

**BLOCK 2. MANUFACTURING MEDICAL PRACTICE IN THE MATERNITY AND PEDIATRIC INSTITUTIONS OF HOSPITALS**

**Semantic section 3. Industrial medical practice in the maternity ward of the hospital**

*Specific goals :*

- know the principles of organization of medical care for pregnant women, mothers and mothers in Ukraine, the basics of Ukrainian legislation on maternal and child health;
- to improve the diagnosis of early and late pregnancy;
- participate in the management of physiological childbirth and the postpartum period;
- know the clinical, laboratory and instrumental diagnosis and tactics of treatment of complications of pregnancy, childbirth, the postpartum period in an obstetric hospital;
- to master practical skills of providing emergency medical care in obstetrics;
- apply the principles of ethics and deontology in the practice of the maternity ward.

**Topic 13. Principles of organization of medical care for pregnant women, mothers and parturients in Ukraine. Fundamentals of Ukrainian legislation on maternal and child health.**

Acquaintance with the structure, divisions and work of the maternity ward. The role of the obstetrician-gynecologist in providing medical care to pregnant women, mothers and parturients. Fundamentals of Ukrainian legislation on maternal and child health.

**Topic 14. Diagnosis of early and late pregnancy.**

Management, physiological childbirth and the postpartum period. Clinical, laboratory-instrumental diagnostics and tactics of treatment of complications of pregnancy, childbirth, postpartum period in the obstetric hospital.

**Topic 15. Providing emergency medical care in obstetrics.**

Help with late preeclampsia (preeclampsia, eclampsia), gestational hypertension, placenta previa, pre-detachment of the normally located placenta. Ectopic pregnancy (clinic of

progressive tubal pregnancy and rupture of the fallopian tube). Etiology, clinical picture and emergency care in an obstetric hospital.

**Topic 16. Principles of ethics and deontology in the practice of the maternity ward.**

Features of communication with pregnant women, parturients, parturients. Family planning.

**Semantic section 4. Industrial medical practice in a pediatric hospital**

*Specific objectives:*

- to collect medical history, objective examination of a sick child, to analyze the received results;
- make a preliminary diagnosis;
- to make the plan of inspection of the concrete sick child;
- analyze the results of additional examinations (laboratory, instrumental);
- identify the main symptoms and group them into syndromes in the most common diseases of childhood;
- make a clinical diagnosis and make a differential diagnosis;
- to determine the tactics of treatment, rehabilitation and prevention of the most common diseases of childhood;
- provide emergency care for emergencies in the pediatric clinic;
- to acquire skills of medical manipulations in pediatrics;
- to master the skills of keeping medical records of a children's hospital;
- to master moral and deontological principles in pediatrics

**Topic 17. Principles of organization of medical pediatric care in Ukraine. Fundamentals of Ukrainian legislation on maternal and child health.**

Introduction to the structure, departments and work of the pediatric department. The role of the pediatrician in providing medical care to children of different ages. Fundamentals of Ukrainian legislation on maternal and child health.

**Topic 18. Collection of the anamnesis, objective inspection of children with pathology of respiratory organs, cardiovascular, digestive, urinary systems.**

Conducting subjective and objective examination of children of different ages. Features of communication with children, taking into account the peculiarities of the nervous system and psyche.

**Topic 19. Analysis of the results of additional examinations (laboratory, instrumental).**

General analysis of urine and blood, biochemical blood test. Assessment of general and biochemical analysis of blood, troponin test, lipidogram, coagulogram, urine study by Nechiporenko, analysis by Zymnytsky, analysis by Nechiporenko.

Instrumental research methods ( ECG, ultrasound, X-ray and radioisotope methods used in pediatrics).

**Topic 20. Substantiation and formulation of clinical diagnosis of major nosological diseases in children. Skills of keeping medical records of a children's hospital.**

Substantiation and formulation of clinical diagnosis of major respiratory

diseases in children (acute and chronic bronchitis, pneumonia, bronchiolitis ), cardiovascular system ( hypertension, acute rheumatic fever, congenital heart disease), urinary system (acute and chronic pyelonephritis) .

**Topic 21. Treatment, primary and secondary prevention of major diseases of the respiratory, cardiovascular, digestive, urinary systems. Providing emergency care in urgent conditions in the pediatric clinic.**

Emergency care for convulsive syndrome, hyperthermic, hypoglycemic coma, ketoacidotic coma, cyanotic - dyspnea, asthma attack, fainting, anaphylactic reactions, renal colic.

**STRUCTURE OF THE COURSE : "MANUFACTURING MEDICAL PRACTICE"**

№ s / n	Topic	Practical training	Individual work	
<b>BLOCK 1. MANUFACTURING MEDICAL PRACTICE IN THERAPEUTIC AND SURGICAL DEPARTMENTS OF HOSPITAL IN</b>				
<b>Contents Chapter 1: Production medical practice in the therapeutic department of a hospital in</b>				
1	Methods of physical examination of patients and evaluation of examination results: -cardiovascular system -respiratory organs-Gastrointestinal tract -urethral system -musculoskeletal system -endocrine system	1	4	<ul style="list-style-type: none"> <li>• Curation of the patient</li> <li>• Writing a medical history</li> </ul>
2	Methods of conducting and interpreting instrumental studies of the cardiovascular system ( Measurement of blood pressure in the upper and lower extremities , removal Methods of recording and decoding ECG, interpretation of the conclusion of Holter ECG monitoring and bicycle ergometry	1	4	
3	Laboratory tests in a therapeutic hospital (general analysis of urine and blood, biochemical	1	2	

	blood tests, Evaluation of general and biochemical blood tests, troponin test, lipidograms, coagulograms, urine tests by Nechiporenko, analysis by Zymnitskim, analysis by Nechiporenko)			
4	Methods of conducting and interpreting instrumental studies of the urinary system	1	4	
5	Methods of conducting and interpreting instrumental studies of the respiratory system	1	6	
6	Methods of conducting and interpreting instrumental studies of the digestive system	1	4	
7	Manipulation therapy (n stop of allergic tests, determination of blood groups and rhesus factor. Injections of drugs. )	1	6	
	<b>Together with section 1</b>	<b>7</b>	<b>30</b>	
<b>Semantic section 2: Industrial medical practice in the surgical department of the hospital</b>				
8	Principles of organization of planned and emergency surgical care in Ukraine. Assimilation of the principles of ethics and deontology in the practice of the doctor of the surgical department of the hospital.	2	6	<ul style="list-style-type: none"> <li>• Curation of the patient</li> <li>• Writing a medical history</li> </ul>
9	Clinical, laboratory-instrumental diagnosis and tactics of treatment of patients in emergency abdominal surgery.	2	4	
10	Clinical, laboratory and instrumental diagnosis and treatment tactics in planned abdominal	2	4	

	surgery.			
1 1	Providing emergency medical care for urgent surgical diseases.	1	6	
1 2	Providing planned surgical care in the hospital.	1	10	
	Together with section 2	8	3 0	
	<b>Together block 1</b>	<b>15</b>	<b>60</b>	
<b>BLOCK 2 . PRODUCTION MEDICAL PRACTICE IN THE MATERNITY AND PEDIATRIC INSTITUTIONS OF THE HOSPITAL</b>				
<b>Contents Chapter 3 : Production of medicines Arskii practice in maternity department of a hospital in</b>				
1 3	Principles of organization of medical care for pregnant women, mothers and mothers in Ukraine. Fundamentals of Ukrainian legislation on maternal and child health.	2	4	<ul style="list-style-type: none"> <li>• Curation of pregnant women and women in labor</li> <li>• Writing a birth history</li> </ul>
1 4	Diagnosis of early and late pregnancy. Management, physiological childbirth and the postpartum period. Clinical, laboratory-instrumental diagnostics and tactics of treatment of complications of pregnancy, childbirth, postpartum period in the obstetric hospital.	2	6	
1 5	Providing emergency medical care in obstetrics.	2	10	
1 6	Principles of ethics and deontology in the practice of the maternity ward. Credit lesson.	2	10	
	<b>Together with section 3</b>	<b>8</b>	<b>30</b>	
<b>Contents Section 4 : Production medical practice in a hospital pediatric ward in</b>				
1 7	Principles of organization of medical care for	1	6	<ul style="list-style-type: none"> <li>• Curation of patients</li> </ul>

	children in Ukraine, basics of Ukrainian legislation on child health. Mastering the principles of ethics and deontology in the practice of a pediatrician.			• Writing a medical history
18	Collection of the anamnesis, objective inspection of children with pathology of respiratory organs, cardiovascular, digestive, urinary systems.	4	5	
19	Analysis of the obtained results of additional examinations (laboratory, instrumental).	4	3	
20	Substantiation and formulation of clinical diagnosis of major nosological diseases in children. Skills of keeping medical records of a children's hospital.	4	3	
2 1	Treatment, primary and secondary prevention of major diseases of the respiratory, cardiovascular, digestive, urinary systems. Providing emergency care in urgent conditions in the pediatric clinic.	4	3	
	Together with section 4	1 7	2 0	
	Together with block 2	2 5	5 0	
	<b>Together with the discipline</b>	4 0	1 1 0	

#### 4.1. THEMATIC PLAN OF PRACTICAL CLASSES

<b>№ s / n</b>	<b>Name topics</b>	<b>Count. hours</b>
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**BLOCK 1. MANUFACTURING MEDICAL PRACTICE IN THE THERAPEUTIC AND SURGICAL DEPARTMENTS OF THE HOSPITAL**

**Semantic section 1: Industrial medical practice in the therapeutic department of the hospital**

1	Methods of physical examination of patients and evaluation of examination results: -cardiovascular system ; -respiratory organs ; -gastrointestinal tract-urinary system ; -musculoskeletal system ; -endocrine system .	1
2	ECG recording and recording	1
3	Laboratory tests in a therapeutic hospital (general analysis of urine and blood, biochemical blood tests, Evaluation of general and biochemical blood tests, troponin test, lipidograms, coagulograms, urine tests by Nechiporenko, analysis by Zymnitskim, analysis by Nechiporenko)	1
4	Methods of conducting and interpreting instrumental studies of the urinary system	1
5	Methods of conducting and interpreting instrumental studies of the respiratory system	1
6	Methods of conducting and interpreting instrumental studies of the digestive system	1
7	Manipulation therapy (allergy testing, determination of blood groups and rhesus factor. Injections of drugs) .	1

**Semantic section 2: Industrial medical practice in the surgical department of the hospital**

8	Principles of organization of planned and emergency surgical care in Ukraine. Assimilation of the principles of ethics and deontology in the practice of the doctor of the surgical department of the hospital.	2
9	Clinical, laboratory-instrumental diagnosis and tactics of treatment of patients in emergency abdominal surgery.	2
10	Clinical, laboratory and instrumental diagnosis and treatment tactics in planned abdominal surgery.	2
11	Providing emergency medical care for urgent surgical diseases.	1
12	Providing planned surgical care in the hospital.	1
<b>TOTAL BLOCK 1</b>		<b>15</b>

<b>BLOCK 2. MANUFACTURING MEDICAL PRACTICE IN THE MATERNITY AND PEDIATRIC DEPARTMENTS OF THE HOSPITAL IN</b>		
<b>Content section 3 : Industrial medical practice in the maternity ward of the hospital</b>		
1 3	Principles of organization of medical care for pregnant women, mothers and mothers in Ukraine. Fundamentals of Ukrainian legislation on maternal and child health.	2
1 4	Diagnosis of early and late pregnancy. Management, physiological childbirth and the postpartum period. Clinical, laboratory-instrumental diagnostics and tactics of treatment of complications of pregnancy, childbirth, postpartum period in the obstetric hospital.	4
1 5	Providing emergency medical care in obstetrics.	2
1 6	Principles of ethics and deontology in the practice of the obstetrician .	4
<b>Content section 4 : Industrial medical practice in the pediatric department of the hospital</b>		
17	Principles of organization of medical care for children in Ukraine, basics of Ukrainian legislation on child health. Mastering the principles of ethics and deontology in the practice of a pediatrician.	2
18	Collection of the anamnesis, objective inspection of children with pathology of respiratory organs, cardiovascular, digestive, urinary systems.	2
19	Analysis of the obtained results of additional examinations (laboratory, instrumental).	3
2 0	Substantiation and formulation of clinical diagnosis of major nosological diseases in children. Skills of keeping medical records of a children's hospital.	3
2 1	Treatment, primary and secondary prevention of major diseases of the respiratory, cardiovascular, digestive, urinary systems. Providing emergency care in urgent conditions in the pediatric clinic.	3
<b>TOTAL BLOCK 2</b>		<b>2 5</b>
<b>TOGETHER FROM THE DISCIPLINE</b>		<b>4 0</b>

#### 4.2. THEMATIC PLAN OF INDEPENDENT WORK OF STUDENTS

<b>№ s / n</b>	<b>Topic</b>	<b>Number of hours</b>
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<b>BLOCK 1. MANUFACTURING MEDICAL PRACTICE IN THERAPEUTIC AND SURGICAL DEPARTMENTS OF HOSPITAL IN</b>		
1	Preparation for practical classes - theoretical training and development of practical skills	40
2	Preparing and writing a medical history	10
3	Preparation for the final control	3
4	Individual work: <ul style="list-style-type: none"> <li>• Report of the abstract in a practical lesson.</li> <li>• Report at clinical conferences of departments.</li> <li>• Report of medical history in a practical lesson</li> <li>• Writing abstracts, articles</li> </ul>	7
<b>Together with Block 1</b>		<b>60 years</b>

№ s / n	Topic	Number of hours
<b>BLOCK 2. MANUFACTURING MEDICAL PRACTICE IN THE MATERNITY AND PEDIATRIC DEPARTMENTS OF THE HOSPITAL IN</b>		
1	Preparation for practical classes - theoretical training and development of practical skills	30
2	Preparing and writing a medical history	10
3	Preparation for the final control	3
4	Individual work: <ul style="list-style-type: none"> <li>• Report of the abstract in a practical lesson.</li> <li>• Report at clinical conferences of departments.</li> <li>• Report of medical history in a practical lesson</li> <li>• Writing abstracts, articles</li> </ul>	7
<b>Together with Block 2</b>		<b>50 y.</b>

**Together with the discipline ( hours of independent work) - 110 hours.**

### **BLOCK 1. MANUFACTURING MEDICAL PRACTICE IN THE THERAPEUTIC AND SURGICAL DEPARTMENTS OF THE HOSPITAL**

1. Conducting a survey and physical examination of patients with major diseases of the respiratory, digestive, hematopoietic organs and endocrine system.
2. Evaluation of clinical, biochemical and bacteriological studies of blood, urine, feces, sputum.
3. Evaluation of these instrumental research methods: X-ray examination of the chest and abdomen, ECG, spirometry, sonography of the abdominal organs, fibrogastroduodenoscopy, colonoscopy.
4. Substantiation and formulation of clinical diagnosis;
5. Interpretation of general principles of treatment, primary and secondary prevention of major diseases of the respiratory, digestive, hematopoietic organs and endocrine system;
6. Emergency care in urgent situations (conditions) in acute respiratory failure (asthma attack); hepatic colic; diabetic insects, hyperthyroidism, acute adrenal insufficiency, etc. ;
7. Evaluation of anamnesis data, physical examination: examination of the patient, palpation, percussion, auscultation, rectal examination
8. Analysis of the results of laboratory and instrumental studies (radiography, ultrasound, CT, fibrogastro duodenoscopy, colonoscopy)
9. Substantiation and formulation of clinical diagnosis, differential diagnosis of diseases of the abdominal cavity

10. Determining the plan of conservative and operative treatment depending on pathogenetic factors and severity of the patient's condition.
11. Features of assistance in performing emergency and scheduled operations
12. Features of assistance in dressing: care of a wound, drainages, change of bandages, removal of drainages, removal of seams, cultivation of a wound, surgical on processing of the purulent center.
13. Emergency care for bleeding, septic and hemorrhagic shock; correction of hydroelectrolyte disorders and acid-base status, etc.

## **BLOCK 2. MANUFACTURING MEDICAL PRACTICE IN THE MATERNITY AND PEDIATRIC DEPARTMENTS OF THE HOSPITAL IN**

1. Ability to examine patients, justify and formulate a diagnosis, write a medical history of the child
- 2 . Measurement of blood pressure in the arms and legs
- 3 . Evaluation of clinical tests (general blood test in children of different ages, general urine analysis, urine analysis according to Zymnytsky, urine analysis according to Nechiporenko, general fecal analysis, general sputum analysis), biochemical tests (blood protein and its fractions, alkaline phosphatase, cholesterol, AST, ALT, acute phase indicators, creatinine and blood urea, blood electrolytes, urine analysis for diastase), serological reactions in autoimmune diseases.
- 4 . ECG analysis in children
- 5 . Evaluation of fibrogastroduodenoscopy data with pH-metry, urease test results.
- 6 . Evaluation of spirometry, bronchoscopy, echocardiography.
- 7 . Evaluation of radiographs of the chest, digestive system, genitourinary system.
- 8 . Diagnosis and emergency care for children with convulsions, hyperthermia, exsiccosis and toxicosis in children of the first year of life, dizziness, collapse, pulmonary and laryngeal edema, bronchospasm, asthmatic status, arrhythmias, heart failure, infectious-toxic shock and acute hepatic insufficiency, complications of vaccination and drug therapy (allergic reactions
- External obstetric examination of pregnant women, measurement of pelvic size, determination of the true conjugate.
9. Establishment of the term of pregnancy (according to the anamnesis and objective research), determination of the expected term of childbirth.
10. Determination of gestational age of the fetus and its weight.
11. Features of physiological childbirth.
12. Features of obstetric care in childbirth and the postpartum period.
13. Determining the condition of the newborn on the Apgar scale. Assessment of the condition of the fetus. Primary toilet of the newborn.
14. Registration of medical documentation in obstetrics.
15. Internal obstetric examination in full-term, delayed pregnancy and premature birth.
16. Drawing up a scheme of drug correction of anomalies of labor.
17. Evaluation of the results of amnioscopy, amniocentesis, interpretation of CTG, ultrasound
- 11 Features of assistance in obstetric operations.
18. Providing care for emergencies in obstetrics: eclampsia, obstetric bleeding, postpartum septic complications.

### **Individual tasks**

Selection and review of scientific literature on the subject of the program of the student's choice with the writing of an abstract and its public defense.

Selection and review of scientific literature on the subject of research work of the department with the preparation of a scientific report at a meeting of the SNT or at student conferences.

Scientific research on the topic of research work of the department with the publication of results in scientific journals.

At the request of the student during the study of relevant topics, he can perform individual work, which is carried out in extracurricular activities and if successful, it is additionally evaluated by the teacher.

The list and content of individual tasks can be determined in each case depending on the logistics of the departments.

Approximate list of individual tasks:

1. Interrogation of an indicative patient, his general examination and examination of the head, neck, extremities with the selection of the main symptoms and syndromes of the disease.
2. Carrying out of researches of function of external respiration at indicative patients, processing of the received data and the report at employment
3. Registration ECG part in instrumental studies of the cardiovascular system by -kazovyh patients with data processing and presentation in class
4. Carrying out of physical and instrumental inspection of the demonstrative patient with preparation of the review of scientific literature concerning the investigated case
5. Work with the literature and other sources of information and preparation of an abstract report on modern methods of examination of patients in the clinic of internal medicine
6. Work with the literature and other sources of information and preparation of the abstract report on features of syndromic diagnostics of a disease with a typical course, chosen at the request of the student

### **Tasks for independent work**

The basic list of types of independent work of students, developed in accordance with the structure of the discipline, is presented in the section "Independent work". Mandatory type of independent work of students is the supervision of patients and writing a detailed medical history, which is provided in the study of the relevant tasks for independent work are:

1. Weekly monitoring of patients (questioning, physical examination, evaluation of instrumental and laboratory examinations) with therapeutic Patology of writing history and clinical case presentation on practical class
2. Weekly monitoring of patients (questioning, physical examination, evaluation of instrumental and laboratory examinations) of the surgical Pat olohiyeyu with writing history and clinical case presentation on practical class
3. Weekly observation of a pregnant woman with writing a medical history and presenting a clinical case in practice
4. Weekly observation of a sick child (questioning, physical examination, evaluation of the results of instrumental and laboratory examinations) with writing a medical history and presenting a clinical case in practice

The student independently chooses the disease for which he will conduct curation (questioning, examination) of the patient.

### **Typical test problems to be solved in practical classes:**

1. In the sputum with bronchitis can be found:
  - A. coral-like elastic fibers
  - B. eosinophils
  - C. cylindrical ciliated epithelium
  - D. necrotic scraps with carbon pigment

E. all these elements

2. Ehrlich's notebook includes:

- A. cholesterol crystals
- B. amorphous lime
- C. Mycobacterium tuberculosis
- D. calcified elastic fibers
- E. all these elements

3. Cholesterol crystals in sputum are detected when:

- A. bronchitis
- B. lobar pneumonia
- C. bronchial asthma
- D. decay of the primary tuberculosis center
- E. all these diseases

4. In the sputum in acute bronchitis can be found:

- A. calcified elastic fibers
- B. Dietrich's plugs
- C. caseous necrosis
- D. groups of cylindrical ciliated epithelium
- E. Mycobacterium tuberculosis

5. Hematoidin crystals in sputum are detected when:

- A. bronchopneumonia
- B. lung gangrene
- C. bronchitis
- D. bronchial asthma
- E. lobar pneumonia

6. With histoplasmosis of the lungs in the sputum can be detected:

- A. broad septate mycelium
- B. are intracellularly gram-positive oval or round, budding cells with an unpainted area around them
- C. pseudomycelium
- D. chains of large disjuncts
- E. groups of small mosaically arranged spores

7. Pneumomycosis can include:

- A. favus
- B. candidiasis
- C. epidermophytia
- D. rubromycosis
- E. all listed

8. Normally, a healthy person has the number of respiratory movements per minute:

- A. 10 - 12
- V. 12 - 16
- Pp. 16 - 20
- D. 20 - 25
- E. 25 - 30

9. What percussion sound over the lungs is normal:

- A. Box
- B. Blunt
- C. Clear pulmonary
- D. Blunt-tympanitis
- E. Stupid

10. Hard breathing is:

- A. Physiologically enhanced vesicular respiration
- B. Pathologically enhanced vesicular respiration
- C. Physiologically enhanced bronchial respiration
- D. Pathologically enhanced bronchial respiration
- E. Stenotic respiration

### **4.3. Ensuring the educational process**

1. Multimedia projectors, computers, screens for multimedia presentations, presentations.
2. Demonstration screens, laptops, files in Power Point and Word with tasks "Step-2" for practical and final classes.
3. Credit cards.

When studying the discipline, all kinds of teaching methods recommended for high school are used, namely:

- by sources of knowledge: verbal (explanation, lecture, conversation, discussion); visual (demonstration); practical (practical work, mastering practical skills), on which special emphasis is placed on the study of the discipline;

- by the logic of the educational process: analytical (selection of individual symptoms of the disease), synthetic (clarification of the relationship of symptoms and selection of disease syndromes), their combination - analytical-synthetic, as well as inductive method (mainly in the study of block 1), deductive study of block 2 ), their combination - a translational method (in the study of both modules);

- by the level of independent mental activity: problem, partial-search, research.

Combining and generalizing the above teaching methods, when studying the discipline it is advisable to implement such methods of organizing classes as:

- method of clinical cases,
- problem-research method,
- method of individual educational and research tasks,
- method of competitive groups,
- method of training technologies,
- method of conducting scientific conferences with the use of interactive, interdisciplinary and information and computer technologies

Types of educational activities of the student, according to the curriculum, are : practical classes, independent work of students.

Practical classes lasting 2 academic hours ( 80 minutes) are held on clinical bases and consist of four structural parts:

- 1) mastering the theoretical part of the topic,
- 2) demonstration by the teacher of methods of research of the thematic patient,
- 3) the work of students to practice practical skills at the patient's bedside under the supervision of a teacher,
- 4) solving situational problems and test-control of mastering the material.

When conducting practical classes, the main place is occupied by mastering practical skills in physical examination of the patient and working directly with patients.

On the basis of mastering clinical methods of examination of the patient, the ability to synthesize and interpret, evaluate and analyze them, the student develops clinical thinking and skills of clinical diagnosis, development of a plan of additional examination and treatment.

Independent work of students occupies an important place in the study of the discipline. In addition to the traditional pre-classroom training on theoretical issues, it includes the work of students in inpatient departments, clinical laboratories and departments of functional diagnostics in extracurricular time, the effectiveness of which should be ensured by teachers and support staff of departments. Independent work includes curation of patients with writing a medical history, which involves questioning and complete physical examination of the patient to determine the leading syndromes, the appointment of diagnostic manipulations and participation in the algorithm of medical care for this patient.

## **5. Final control**

### **List of questions of final control ( differentiated credit )**

#### **BLOCK 1. MANUFACTURING MEDICAL PRACTICE IN THERAPEUTIC AND SURGICAL DEPARTMENTS OF HOSPITAL IN**

1. Conducting a survey and physical examination of patients with major diseases of the respiratory, digestive, hematopoietic organs and endocrine system.
  - 2 Evaluation of clinical, biochemical and bacteriological studies of blood, urine, feces, sputum.
  - 3 Evaluation of these instrumental research methods: X-ray examination of the chest and abdomen, ECG, spirometry, sonography of the abdominal organs, fibrogastroduodenoscopy, colonoscopy.
  - 4 Rationale and formulation of clinical diagnosis;
  - 5 Interpretation of general principles of treatment, primary and secondary prevention of major diseases of the respiratory, digestive, hematopoietic organs and endocrine system;
  - 6 Emergency care in emergency situations (conditions) in acute respiratory failure (asthma attack); hepatic colic; diabetic insects, hyperthyroidism, acute adrenal insufficiency, etc .;
- List of skills and practical skills for control
7. Evaluation of anamnesis data, physical examination: examination of the patient, palpation, percussion, auscultation, rectal examination
  8. Analysis of the results of laboratory and instrumental studies (radiography, ultrasound, CT, fibrogastroduodenoscopy, colonoscopy)
  9. Substantiation and formulation of clinical diagnosis, differential diagnosis of diseases of the abdominal cavity
  10. Determining the plan of conservative and operative treatment depending on pathogenetic factors and severity of the patient's condition.
  11. Features of assistance in performing emergency and scheduled operations
  12. Features of assistance in the dressing: wound care, drainage, change of dressings, removal of drainages, removal of sutures, wound dilution, surgical treatment of purulent lesions.
  13. Emergency care for bleeding, septic and hemorrhagic shock; correction of hydroelectrolyte disorders and acid-base status, etc.

#### **BLOCK 2. MANUFACTURING MEDICAL PRACTICE IN THE MATERNITY AND PEDIATRIC DEPARTMENTS OF THE HOSPITAL IN**

1. Ability to examine patients, justify and formulate a diagnosis, write a medical history of the child
- 2 Measurement of blood pressure in the arms and legs
- 3 Evaluation of clinical tests (general blood test in children of different ages, general urine analysis, urine analysis according to Zymnytsky, urine analysis according to Nechiporenko, general analysis of feces, general analysis of sputum), biochemical tests (blood protein and its



fractions, alkaline phosphatase, cholesterol , AST, ALT, acute phase indicators, creatinine and blood urea, blood electrolytes, urine analysis for diastase), serological reactions in autoimmune diseases.

4 ECG analysis in children

5 Evaluation of fibrogastroduodenoscopy data with pH-metry, urease test results.

6 Evaluation of spirometry, bronchoscopy, echocardiography.

7 Evaluation of radiographs of the chest, digestive system, genitourinary system.

8 Diagnosis and first aid for children with convulsions, hyperthermia, exsiccosis and toxicosis in children of the first year of life, dizziness, collapse, edema of the lungs and larynx, bronchospasm, asthmatic status, arrhythmias, heart failure, infectious-toxic shock, acute and liver failure, complications of vaccination and drug therapy (allergic reactions

External obstetric examination of pregnant women, measurement of pelvic size, determination of the true conjugate.

9. Establishment of the term of pregnancy (according to the anamnesis and objective research), determination of the expected term of childbirth.

10. Determination of gestational age of the fetus and its weight.

11. Features of physiological childbirth.

12. Features of obstetric care in childbirth and the postpartum period.

13. Determining the condition of the newborn on the Apgar scale. Assessment of the condition of the fetus. Primary toilet of the newborn.

14. Registration of medical documentation in obstetrics.

15. Internal obstetric examination in full-term, delayed pregnancy and premature birth.

16. Drawing up a scheme of drug correction of anomalies of labor.

17. Evaluation of the results of amnioscopy, amniocentesis, interpretation of CTG, ultrasound

11 Features of assistance in obstetric operations.

18. Providing care for emergencies in obstetrics: eclampsia, obstetric bleeding, postpartum septic complications.

Sets of practical tasks are formed directly from the list of practical skills that the student must master while studying each of the two modules of the discipline, which are standardized by the method of practical work.

#### **Lists the practical skills that a student must learn when studying block 1:**

1. Interrogate the patient. Make a conclusion about the obtained anamnestic data. Identify the main symptoms and syndromes.
2. Conduct a general examination of the indicative patient. Identify the leading symptoms.
3. Examine the head and neck of a demonstrative patient. Determine the clinical significance of symptoms.
4. Examine the torso and limbs of the patient. Determine the clinical significance of symptoms.
5. Examine the chest of a patient with broncho-pulmonary pathology, assess static and dynamic signs.
6. Examine the atrial area, determine the clinical significance of symptoms.
7. Examine the abdomen, determine the clinical significance of symptoms.
8. Conduct a palpation of the chest to determine the clinical significance of symptoms.
9. Conduct a palpation of the lymph nodes, evaluate the results.
10. Conduct a palpation examination of the thyroid gland, evaluate the data obtained.
11. Conduct a palpation of the pulse, determine the clinical significance of symptoms.
12. Conduct a palpation of the atrial area, determine the clinical significance of symptoms.

13. Conduct a superficial palpation of the abdomen, determine the clinical significance of symptoms.
14. Conduct palpation of the sigmoid colon, determine the clinical significance of symptoms.
15. Conduct a palpation of the cecum, determine the clinical significance of symptoms.
16. Conduct a palpation of the ascending colon to determine the clinical significance of symptoms.
17. Conduct a palpation examination of the descending part of the colon, to determine the clinical significance of symptoms.
18. Conduct a palpation of the transverse colon, determine the clinical significance of symptoms.
19. Conduct a palpation of the liver to determine the clinical significance of symptoms.
20. Conduct palpation of the spleen, determine the diagnostic value of symptoms.
21. Conduct palpation and percussion examination of the kidneys, to determine the diagnostic value of symptoms.
22. Determine the lower limit of the stomach, evaluate the data obtained.
23. Determine the presence of fluid in the abdominal cavity, give a clinical assessment.
24. Measure blood pressure in the upper extremities, evaluate the data obtained.
25. Measure blood pressure in the lower extremities, evaluate the data obtained.
26. Carry out a comparative percussion of the lungs and determine the clinical significance of symptoms.
27. Carry out topographic percussion of the lungs and determine the diagnostic value of symptoms.
28. Conduct a percussion examination of the heart, determine the limits of relative dullness of the heart, give a clinical assessment.
29. Conduct a percussion examination of the heart, determine the limits of absolute dullness of the heart, give a clinical assessment.
30. Percussion method to determine the boundaries of the liver, to assess the diagnostic value of symptoms.
31. Percussion method to determine the boundaries of the spleen, to give a clinical assessment.
32. Carry out auscultation of the lungs, determine the quantitative and qualitative changes in respiration, give a clinical assessment.
33. Carry out auscultation of the lungs, determine additional respiratory noises, give a clinical assessment.
34. Conduct a study of bronchophonia, give a clinical assessment.
35. Auscultate the arteries, determine the diagnostic value of symptoms.
36. Carry out auscultation of the heart, determine changes in its tones, give a clinical assessment.
37. Carry out auscultation of the heart, determine the diagnostic value of heart murmurs.
38. To analyze the ECG of a patient with impaired automaticity of the heart.
39. Analyze the ECG of a patient with impaired cardiac excitability. Carry out differential diagnosis of extrasystoles.
40. Analyze the ECG of a patient with impaired cardiac conduction.
41. Analyze the ECG of a patient with a combined violation of excitability and conduction of the heart.
42. Analyze the FCG of a patient with heart disease.

**The list of practical skills that the student must learn when studying block № 2:**

1. Conduct a physical examination of a child with heart disease. Identify the leading symptoms and syndromes.
2. Conduct a physical examination of a child with respiratory pathology . Identify the leading symptoms and syndromes.
3. Conduct a physical examination of a child with digestive pathology.
4. Measurement of blood pressure in the arms and legs
5. Evaluation of clinical tests (general blood test in children of different ages, general urine analysis, urine analysis according to Zymnytsky, urine analysis according to Nechiporenko, general fecal analysis, general sputum analysis), biochemical tests (blood protein and its fractions, alkaline phosphatase, cholesterol, AST, ALT, acute phase indicators, creatinine and blood urea, blood electrolytes, urine analysis for diastase), serological reactions in autoimmune diseases.
6. ECG analysis
7. Evaluation of fibrogastroduodenoscopy data with pH-metry, urease test results.
8. Evaluation of spirometry, bronchoscopy, echocardiography.
9. Evaluation of radiographs of the chest, digestive system, genitourinary system.
10. Diagnosis and first aid for children with convulsions, hyperthermic syndrome, exsiccosis and toxicosis in children of the first year of life, dizziness, collapse, pulmonary and laryngeal edema, bronchospasm, asthmatic status, cardiac arrhythmias, heart failure, infectious-toxic shock, acute renal and hepatic failure, complications of vaccination and drug therapy (allergic reactions).
11. Work with the patient:
  - Collect complaints, medical history, life history;
  - Collect information about the general condition of the patient (consciousness, constitution, fatness) and evaluate the appearance (examination of the skin, subcutaneous fat, palpation of lymph nodes, thyroid and mammary glands), examine the condition of the musculoskeletal system, joints;
  - Examine the condition of the respiratory system (chest examination, chest palpation, percussion and lung auscultation);
  - Examine the state of the circulatory system (examination and palpation of the heart and blood vessels, percussion of the heart and auscultation of the heart and blood vessels);
  - Examine the condition of the digestive organs (examination, percussion, superficial and deep palpation);
  - Examine the condition of the urinary system (examination of the lumbar region, palpation of the kidneys).
  - **Make a preliminary diagnosis of the disease (List 1).**
  - **Assign and justify laboratory and / or instrumental examination of a patient with diseases (List 1).**
  - **Interpret the results of laboratory and instrumental research (List 2)**
  - **Carry out differential diagnosis of diseases (List 1).**
  - Determine the necessary regime and diet of a patient with diseases (List 1).
  - Determine the principles and nature of treatment (conservative, operative) of diseases (List1).
  - Diagnose and provide emergency care (List 3)
  - Perform medical manipulations (List 4)
  - Determine the tactics of secondary prevention of patients subject to dispensary supervision.
  - Maintain medical records (List 5), prescribe essential medicines (List 6)

**OBSTETRICS SKILLS**

- 1. Calculation and analysis of demographic indicators: birth rate, natural increase.
- 2. Determination of the height of the uterus.
- 3. Compilation and evaluation of a gravidogram
- 4. Auscultation with fetal heartbeat
- 5. Palpation of the abdomen by the method of Leopold
- 6. Compilation of n orthogram
  
- 7. Bimanual examination of the uterus
- 8. Calculation of magnesium for disposable and maintenance therapy
- 9. Determining the duration of pregnancy
- 10. Installation and removal of the Navy .
- 11. Examination of the cervix in mirrors
  
- 12. Primary care for newborns
- 13. Anthropometry of newborn dads prevention of gonoblenorrhea

#### **List 1 (Syndromes and Symptoms)**

1. ANEMIA ( acute and chronic posthemorrhagic anemia, iron deficiency, B12-deficiency, folate deficiency, aplastic, hemolytic)
2. ARTERIAL HYPERTENSION ( essential arterial hypertension, secondary arterial hypertension: renal - renovascular, renoparenchymatous; endocrine - Itsenko-Cushing's syndrome and disease, pheochromocytoma, primary hyperaldosteronism, thyrotoxicosis, arterial toxicity, coarctation)
3. ASCITIS (cirrhosis and liver tumors, right ventricular heart failure, including constrictive pericarditis, hepatic vein thrombosis, thrombosis of the portal vein or its branches, thrombosis, stenosis, obliteration of the inferior vena cava at or above the hepatic veins, etc.).
4. CHEST PAIN ( ACUTE CORONARY SYNDROME, ANGINA PECTORIS, AORTIC STENOSIS, HYPERTROPHIC CARDIOMYOPATHY, MITRAL VALVE PROLAPSE, CORONARY ARTERY DISEASE, MYOCARDITIS, ACUTE PERICARDITIS, AORTIC DISSECTION, AORTIC DISSECTION, PLEURISY , SPASM OF THE ESOPHAGUS, HERNIA OF THE ESOPHAGEAL ORIFICE OF THE DIAPHRAGM, PEPTIC ULCER OF THE STOMACH AND DUODENUM, OSTEOCHONDROSIS OF THE THORACIC SPINE, SHINGLES, MYOSITIS, COSTOCHONDRITIS, INTERCOSTAL NEURALGIA, NEUROCIRCULATORY DYSTONIA, AND SYNDROME .
5. ABDOMINAL PAIN ( cholecystitis, dyskinesia of the gallbladder and sphincter of Oddi, gallstone disease, pancreatitis, chronic gastritis, peptic ulcer of the stomach and duodenum, irritable bowel syndrome, celiac disease and other enteropathies, necrocytic disease, Crohn's disease) ).
6. PAIN IN THE LIMBS AND BACK (ANKYLOSING SPONDYLITIS, OSTEOARTHRITIS, OSTEOCHONDROSIS, OSTEOPOROSIS, DERMATOMYOSITIS / POLYMYOSITIS, NEUROPATHY, IN PARTICULAR VASCULITIS AND DIABETES).
7. BRONCHOOBSTRUCTIVE SYNDROME ( CHRONIC OBSTRUCTIVE PULMONARY DISEASE, BRONCHIAL ASTHMA, TUMORS OF THE TRACHEA, BRONCHI AND MEDIASTINUM).
8. EFFUSION INTO THE PLEURAL CAVITY ( TUBERCULOSIS, PNEUMONIA, MALIGNANT TUMORS OF THE PLEURA AND LUNGS, HEART FAILURE, ACUTE PANCREATITIS, LIVER CIRRHOSIS, NEPHROTIC SYNDROME, CHEST INJURIES, HYPOTHYROIDISM, SYSTEMIC CONNECTIVE TISSUE DISEASES ) .

9. HEMORRHAGIC SYNDROME (hemorrhagic vasculitis, nodular polyarteritis, hypersensitive vasculitis, hemophilia, idiopathic thrombocytopenic purpura, disseminated intravascular coagulation syndrome, malignant diseases of the hematopoietic system accompanied by thrombocytopenia ).
10. HEPATOMEGALY AND HEPATOLIENAL SYNDROME ( ACUTE AND CHRONIC HEPATITIS, CIRRHOSIS AND LIVER CANCER, HEPATIC VENOUS THROMBOSIS, LEUKEMIA, LYMPHOGRANULOMATOSIS, ERYTHREMIA, RIGHT VENTRICULAR HEART FAILURE, INCLUDING CONSTRICTIVE PERICARDITIS, ACCUMULATION DISEASES, IN PARTICULAR, HEMOCHROMATOSIS).
11. DYSPEPSIA ( gastroesophageal reflux disease, gastric cancer, chronic gastritis, peptic ulcer of the stomach and duodenum, chronic pancreatitis, pancreatic cancer, toxic goiter, diabetes, hypo- and hyperthyroidism).
12. DYSPHAGIA (esophagitis, including gastroesophageal reflux disease, esophageal cancer, diffuse esophageal spasm, achalasia of the cardia, esophageal diverticula, dysphagia with lesions of the central and peripheral nervous system and muscular system, systemic scleroderma).
13. JAUNDICE ( ACUTE AND CHRONIC HEPATITIS, CIRRHOSIS AND LIVER CANCER, HEMOLYTIC ANEMIA, GALLSTONE DISEASE, PANCREATIC HEAD CANCER, VATER NIPPLE CANCER, BENIGN HYPERBILIRUBINEMIA, MALARIA, LEPTOSPIROSIS, YERSINIOSIS).
14. SHORTNESS OF BREATH (IN HEART FAILURE WITH PRESERVED AND REDUCED SYSTOLIC FUNCTION OF THE LEFT VENTRICLE; RESPIRATORY FAILURE DUE TO IMPAIRED BRONCHIAL PATENCY AND DISEASES OF THE LUNGS AND PLEURA, INCLUDING PNEUMONIA, TUBERCULOSIS AND PNEUMOTHORAX; PULMONARY VASCULAR PATHOLOGY, INCLUDING PULMONARY EMBOLISM AND PULMONARY ARTERY DISEASE) MUSCLES, HYPERVENTILATION SYNDROME IN NEUROSIS AND NEUROCIRCULATORY DYSTONIA, LESIONS OF THE RESPIRATORY CENTER IN ORGANIC DISEASES OF THE BRAIN, ANEMIA, BOTULISM).
15. CONSTIPATION (IRRITABLE BOWEL SYNDROME, BOWEL CANCER, ANORECTAL DISEASES, HYPOTHYROIDISM, SITUATIONAL, IATROGENIC, PSYCHOGENIC AND NEUROGENIC CONSTIPATION, EATING DISORDERS).
16. GOITER ( non-toxic and toxic goiter, thyroiditis, thyroid cancer).
17. COUGH (chronic obstructive pulmonary disease, bronchial asthma, pulmonary tuberculosis, bronchiectasis, pneumonia, pneumoconiosis, malignant tumors of the lungs and bronchi, left ventricular heart failure, postnasal drip syndrome, gastroesophageal reflux disease).
18. HEMOPTYSIS ( pulmonary tuberculosis, malignant tumors of the bronchi and lungs, pneumonia, bronchiectasis, lung abscess, mitral stenosis, pulmonary infarction).
19. PULMONARY INFILTRATE (pneumonia, infiltrative pulmonary tuberculosis, eosinophilic pulmonary infiltrate, heart attack and lung cancer, benign lung tumors, pulmonary sarcoidosis, focal pneumosclerosis)
20. LYMPHADENOPATHY (TUBERCULOSIS, SARCOIDOSIS, INFECTIOUS MONONUCLEOSIS, SYSTEMIC CONNECTIVE TISSUE DISEASES, METASTATIC LESIONS, ACUTE AND CHRONIC LYMPHOID AND MYELOID LEUKEMIAS, HODGKIN'S DISEASE, NON-HODGKIN'S MALIGNANT LYMPHOMAS, REACTIVE LYMPHADENITIS, B).
21. FEVER ( rheumatoid arthritis, infectious endocarditis, malignant neoplasms, including leukemia, lymphoma, myeloma, lymphogranulomatosis, sepsis, tuberculosis, systemic connective tissue diseases, nodular polyarteritis, purulent cholangitis, internal organs, abscesses ).

22. EDEMA SYNDROME (venous edema: chronic venous insufficiency, venous outflow disorders, deep vein thrombophlebitis; lymphatic edema: inflammatory, obstructive; fatty, orthostatic and idiopathic; in musculoskeletal system: arthritis, tendrovaginitis; with the development of heart failure, liver disease, in particular cirrhosis of the liver and other hypoproteinemic conditions: exudative enteropathy, malabsorption syndrome, alimentary and cachectic edema; edema due to medication and endocrine diseases: hypothyroidism).
23. UNCONSCIOUSNESS (cardiogenic causes: in particular, in structural pathology - valvular heart disease, including stenosis of the mouth of the aorta, hypertrophic cardiomyopathy, pericarditis / tamponade of the heart, dysfunction of the valve prosthesis, aortic dissection, high pulmonary arterial hypertension, hypertensive hypertension; paroxysmal cardiac arrhythmias, sinus node dysfunction, high-grade atrioventricular block, artificial pacemaker dysfunction, reflex, including vasovagal, situational, carotid sinus irritation and orthostatic hypotension).
24. NEPHROTIC SYNDROME ( acute and chronic glomerulonephritis, renal amyloidosis, diabetic nephropathy, myeloma).
25. OLIGOANURIA (prerenal, renal, postrenal).
26. SPIRIT (gastroesophageal reflux disease, chronic gastritis, unexamined dyspepsia, peptic ulcer of the stomach and duodenum).
27. PORTAL HYPERTENSION ( chronic viral hepatitis, cirrhosis and liver tumors, right ventricular heart failure, including constrictive pericardium, thrombosis of the hepatic veins, thrombosis of the portal vein or its branches, thrombosis, stenosis, obliteration of the inferior vena cava at or above the liver , etc.).
28. HEART RHYTHM DISORDERS (extrasystole, atrial fibrillation and flutter, paroxysmal tachycardia ).
29. URINARY SYNDROME ( ACUTE AND CHRONIC GLOMERULONEPHRITIS, UROLITHIASIS, TUBULOINTERSTITIAL KIDNEY DISEASE, PYELONEPHRITIS, DIABETIC NEPHROPATHY, RENAL INFARCTION, RENAL TUBERCULOSIS, HYPERNEPHROMA, CYSTITIS, URETHRITIS, HEMORRHAGIC VASCULITIS).
30. JOINT SYNDROME (RHEUMATOID ARTHRITIS, OSTEOARTHRITIS, ANKYLOSING SPONDYLITIS, REACTIVE ARTHRITIS, GOUT, SYSTEMIC LUPUS ERYTHEMATOSUS, SYSTEMIC SCLERODERMA, ACUTE RHEUMATIC FEVER).
31. WEIGHT LOSS (ONCOLOGICAL DISEASES, SYSTEMIC LUPUS ERYTHEMATOSUS, NODULAR POLYARTERITIS, DISEASES OF THE DIGESTIVE TRACT, LUNGS, INCLUDING TUBERCULOSIS, CARDIOVASCULAR SYSTEM, ALIMENTARY AND PSYCHOGENIC WEIGHT LOSS, HIV INFECTION).
32. LONG-TERM DIARRHEA SYNDROME (CHRONIC ATROPHIC GASTRITIS, OPERATED GASTRIC DISEASE, ZOLLINGER-ELLISON SYNDROME, CROHN'S DISEASE, NONSPECIFIC ULCERATIVE COLITIS, CELIAC DISEASE, WHIPPLE'S DISEASE, SYNDROME OF EXCESSIVE BACTERIAL GROWTH IN DIARRHEAL BACTERIAL GROWTH AMYLOIDOSIS, ACQUIRED IMMUNODEFICIENCY SYNDROME).
33. DYSPNOEA AND LOCAL CYANOSIS ( LUNG AND HEART DISEASE, INCLUDING CONGENITAL HEART DEFECTS IN EISENMENGER'S SYNDROME AND ACQUIRED HEART DEFECTS - MITRAL STENOSIS, TRICUSPID VALVE INSUFFICIENCY, HEART AND RESPIRATORY FAILURE AND PATHOLOGICAL HEMOGLOBIN FORMATION) .
34. GASTROINTESTINAL BLEEDING (varicose veins of the esophagus, gastric erosion, peptic ulcer and other ulcers of the stomach and duodenum, malignant tumors, nonspecific ulcerative colitis, hemorrhagic vasculitis, hemorrhoids).
35. HEART NOISE: congenital heart defects: ventricular septal defect, atrial septal defect, open ductus arteriosus, aortic coarctation, acquired heart defects: mitral stenosis, mitral valve insufficiency (organic and relative), mitral valve prolapse, aortic valve prolapse, ano ,

hypertrophic cardiomyopathy, tricuspid valve insufficiency (organic and relative), innocent systolic murmur in young people).

### **List 2 (diseases)**

#### **Diseases of the cardiovascular system**

1. Essential hypertension (hypertension).
2. Secondary (symptomatic) hypertension:
  - renal (renovascular, renoparenchymatous);
  - endocrine (Itsenko-Cushing's syndrome and disease, pheochromocytoma, primary hyperaldosteronism, thyrotoxicosis);
  - coarctation of the aorta;
  - isolated systolic arterial hypertension;
  - hypertension during pregnancy;
3. Neurocirculatory dystonia.
4. Atherosclerosis.
5. Chronic forms of coronary heart disease.
6. Acute coronary syndrome (unstable angina, acute myocardial infarction).
7. Pericarditis.
8. Pulmonary heart.
9. Acquired heart defects: mitral, aortic and tricuspid valves, combined mitral and aortic defects.
10. Congenital heart defects: atrial, interventricular septal defect, open ductus arteriosus, aortic coarctation.
11. Infectious endocarditis.
12. Myocarditis and cardiomyopathy.
13. Pulmonary artery thromboembolism.
14. Cardiac arrhythmias.
15. Impaired conduction of the heart.
16. Heart failure.

#### **Respiratory diseases**

1. Chronic obstructive pulmonary disease.
2. Bronchial asthma.
3. Pneumonia.
4. Pleurisy.
5. Infectious and destructive lung diseases .
6. Respiratory failure .

#### **Diseases of the digestive system**

1. Chronic esophagitis and gastroesophageal reflux disease.
2. Functional disorders of the stomach, gallbladder, biliary tract and intestine.
3. Chronic gastritis and duodenitis.
4. Peptic ulcer of the stomach and duodenum.
5. Celiac disease and other enteropathies.
6. Not specific ulcerative colitis, Crohn's disease .
7. Gallstone disease; chronic cholecystitis.
8. Chronic hepatitis.
9. Cirrhosis of the liver.
10. Chronic pancreatitis.

#### **Diseases of the musculoskeletal system and connective tissue**

1. Osteoarthritis .
2. Systemic lupus erythematosus . .
3. Systemic scleroderma .
4. Gout.

5. Reactive arthritis.
6. Acute rheumatic fever.
7. Rheumatoid arthritis .
8. Dermatomyositis / poliomyositis.
9. Ankylosing spondylitis.
10. Systemic vasculitis (hypersensitive and hemorrhagic vasculitis, nodular polyarteritis).

#### **Diseases of the urinary system**

1. Pyelonephritis .
2. Tubulo-interstitial nephritis.
3. Acute and chronic glomerulonephritis.
4. Renal amyloidosis.
5. Nephrotic syndrome.
6. Chronic kidney disease.

#### **Diseases of the hematopoietic organs**

1. Anemia.
2. Acute and chronic leukemias.
3. Lymphomas.
4. Myeloma.
5. Hemophilia.
6. Thrombocytopenic purpura.

#### **Diseases of the endocrine system**

1. Diabetes mellitus, type 1
2. Diabetes mellitus, type 2
3. Iodine deficiency diseases of the thyroid gland
4. Hypothyroidism
5. Thyrotoxicosis
6. Thyroid cancer
7. Itsenko-Cushing's syndrome and disease
8. Pheochromocytoma
9. Aldosteroma
10. Metabolic syndrome.

#### **List 3 (laboratory and instrumental research methods)**

1. Adrenocorticotrophic hormone, cortisol, aldosterone and blood renin
2. Analysis of pleural fluid
3. Analysis of ascitic fluid
4. Analysis of synovial fluid
5. Analysis of urine for diastase
6. Urine analysis by Nechiporenko
7. Urine analysis according to Zymnytsky
8. Biochemical markers of myocardial necrosis, D-dimer
9. Biochemical parameters of serum iron metabolism.
10. Acute blood parameters, total blood protein and its fractions.
11. General blood test.
12. General analysis of urine, test for microalbuminuria.
13. General analysis of sternal punctate
14. General analysis of sputum
15. General immunological profile of blood
16. Blood electrolytes
17. Enzyme-linked immunosorbent assay, immunochemical, molecular biological study of blood
18. Ketone bodies of blood and urine, ioduria.



19. Coagulogram
20. Coprocytogram
21. Creatinine and blood urea, glomerular filtration rate
22. Blood lipid spectrum
23. Alkaline phosphatase, blood alpha-amylase
24. Markers of viral hepatitis
25. Metanephrines in urine
26. Microbiological study of biological fluids and secretions
27. Indicators of acid-base status of blood
28. Serological reactions in autoimmune diseases
29. Blood uric acid
30. Glucose tolerance test, glycemic profile, C-peptide, glycated hemoglobin, fructosamine
31. Blood transaminases, total bilirubin and its fractions
32. TSH, T<sub>4</sub>, T<sub>3</sub>, antibodies to thyroperoxidase (ATPO), antibodies to TSH receptors, antibodies to thyroglobulin
33. Fekalna elastase-1
34. Respiratory tests with <sup>13</sup>C-urea, <sup>13</sup>C-triglycerides, <sup>13</sup>C-starch, <sup>13</sup>C-lactose and respiratory hydrogen tests with glucose and lactulose
35. Study of the function of external respiration
36. Examination of bile
37. Electrocardiographic examination
38. Echocardiography
39. Endoscopic examination of the bronchi
40. Endoscopic examination of the digestive tract
41. Samples with dosed exercise
42. Radiation examination of the abdominal cavity
43. Radiation examination of the thoracic cavity
44. Radiation study of the genitourinary system
45. Radiation examination of the skull, bones and joints
46. Sonography, thyroid scan
47. X-ray contrast angiography
48. pH-metry of the stomach, esophagus
49. Cytological examination of a lymph node biopsy.

#### **List 4 (EMERGENCY STATES)**

- Addisonic crisis
- Hypertensive crisis
- Acute coronary syndrome
- Acute heart failure
- Acute respiratory failure
- Acute hepatic encephalopathy
- Acute kidney damage
- Circulatory and respiratory arrest
- Komi
- Bleeding (esophageal and gastrointestinal)
- Quincke's edema / laryngeal edema
- Paroxysmal cardiac arrhythmias and cardiac conduction disorders (paroxysmal tachycardia and atrial fibrillation / flutter, high-grade atrioventricular block, Morgan-Edems-Stokes syndrome)
  - Spontaneous pneumothorax
  - Cardiac tamponade
  - Thyrotoxic crisis

- Pulmonary artery thromboembolism
- Syncope
- Shocks

### **List 5 (MEDICAL MANIPULATIONS)**

1. Inject drugs (subcutaneous, intramuscular, intravenous jet and drip).
2. Determine blood type.
3. Measure blood pressure
4. Record the ECG in 12 leads
5. Perform artificial lung ventilation and perform indirect heart massage
6. Catheterize the bladder with a soft catheter
7. Carry out injections of medicinal substances
8. Determine blood type

### **List 6**

#### **KNOW THE CLINICAL PHARMACOLOGY OF THE MAIN GROUPS OF MEDICINES**

1. Antibacterial
2.  $\alpha$  and  $\beta$ -blockers
3. Expectorants
4. Hemostatics
5. Proton pump inhibitors
6. H<sub>2</sub>-histamine blockers
7. Oral hypoglycemic agents and preparations of insulin, thyroxine, imidazole derivatives
8. Iron supplements
9. Cholinolytics

#### **"0" version of the credit card**

#### **Petro Mohyla Black Sea National University**

Level of higher education - master

Field of knowledge: 22 Health care

C specialist Medicine 222

Educational discipline - **PRODUCTION MEDICAL PRACTICE**

#### **Option № 0**

1. Algorithms and method of gastric lavage. Indications, contraindications. - **maximum number of points - 20.**
2. Renal colic. Etiology, pathogenesis, clinical picture. Emergency care - **the maximum number of points - 20.**
3. A rhythm registration and analysis of ECG in children. - **maximum number of points - 20.**
4. 1. Zhinka 32 years appealed to the doctor antenatal clinic complaining of horseradish - cal pelvic pain that is amplified during menses, dyspareunia, spotting before and after menstruation. Last - ing menstruation 3 weeks later. When viewed in the mirror: the cervix cysts 2 dia - meter 3 and 5 mm blue-purple color which stands out dark brown ridy - on. At bimanual research: the body of a uterus of the spherical form increased to 6 weeks of pregnancy, painful at a palpation. Appendages on both sides without features. The doctor informed that nayblyzh - whose time of birth of the child is not planned. What is the

treatment in this patient is the most - more appropriate? Demonstrate Leopold's tricks .- **maximum number of points - 20.**

*Approved at the meeting of the Department of "therapeutic and surgical disciplines", the protocol № \_\_\_\_\_ from " \_\_\_\_ " \_\_\_\_\_ 2020.*

**Head of the Department Professor Zak M.Yu.**

**Examiner Professor Zak M.Yu.**

### **An example of the final control work on block 1 Solving problems Step-2**

1. A 36-year-old man has a dry cough, discharge of mucous sputum, fever up to 37.6 ° C, sweating, general weakness. Ill for 3 years. Smokes for 6 years. Above the lungs a clear pulmonary percussion sound, scattered dry rales. In the blood hemoglobin 148 g / l, erythrocytes  $4.6 \cdot 10^{12} / l$ , leukocytes  $9.2 \cdot 10^9 / l$ , lymphocytes 30%. On the review roentgenogram of strengthening of a pulmonary drawing from both parties. What is the most likely diagnosis of the patient?

- A. Pneumonia
- B. Bronchitis
- S. Pleurisy
- D. Bronchial asthma
- E. Pleurisy

2. Patient N., 38 years old, feels well, asthma attacks occur 1-2 times a week. Constantly SAG - tosovuye serevent leads journal entries peak flow metria. During the last week, the indicators of POSH VISION in the morning 280 l / min. (normal - 545 l / min.), POSH VIEW in the evening - 550 l / min. Top performance NEPs UCI in this - Ref 425 l / min. What is the most likely diagnosis of the patient?

- A. Pneumonia
- B. Bronchitis
- S. Pleurisy
- D. Bronchial asthma
- E. Pleurisy

3. A 42-year-old man has a rise in body temperature to 40 ° C, chills, cough with viscous mucous sputum, which contains blood impurities, chest pain when coughing and deep breathing, pronounced blush on the right cheek, herpetic rash on lips. Shallow breathing, its frequency is 28 / min. The right side of the thoracic cage - ing behind breathing. Bronchial respiration is heard above the lower part of the right lung. In the blood erythrocytes  $5.2 \cdot 10^{12} / l$ , leukocytes  $16.0 \cdot 10^9 / l$ , fibrinogen 8 g / l, C-reactive protein ++. What examination should be performed on the patient to confirm the diagnosis?

- A. Spirometry
- B. Bacteriological examination of sputum
- C. X-ray examination
- D. ECG
- E. Answers B and C.

**And so 30 problems with the subsequent analysis of typical errors.**

## **An example of the final control work on block 2**

### **Solving problems Step-2**

- 1 . Pregnancy 36 weeks. Blood pressure - 160/110 mm Hg, proteinuria - 0.5 g / day. A court attack developed. Your priority actions:
  - A Insert the dilator, lock the tongue with the tongue holder
  - B Soothe the pregnant woman
  - C Introduce analgesics
  - D Enter antihypertensive
  - E Give oxygen
  
- 2 . Provide pre-medical care for bleeding due to cervical cancer:
  - A Tight vaginal tamponade
  - B Introduction of hemostatic drugs
  - C Introduction of uterotonic drugs
  - D Introduction of a tampon with ether into the posterior vault of the vagina
  - E Introduction of a gynecological tampon
  
- 3 . During the external obstetric examination revealed: the position of the fetus longitudinal, I position, anterior view, the main presentation. Determine the place of the best listening to the fetal heartbeat:
  - A Left below the navel
  - B Navel area
  - C Right below the navel
  - D Right above the navel
  - E Left above the navel
  
- 4 . A pregnant woman came to the FAP paramedic to register at the dispensary. Pregnancy 10 weeks. What medical documentation should the paramedic draw up:
  - A Individual card for pregnant and postpartum women (file №111 / 0 and exchange card (file 113/0))
  - B Control card of dispensary supervision (f. 30)
  - C Medical card of an outpatient (f. 025/0)
  - D Exchange card (f. 113/0)
  - E Medical card of an inpatient (f. 003)
  
- 5 . The midwife of the health center was visited by a 26-week-old pregnant woman with edema of the feet and legs, AT160 / 100 mm Hg, proteinuria - 0.5 g / day. Your actions:
  - A Hospitalized in an ambulance
  - B Write a referral to a doctor
  - C Introduce antihypertensive drugs
  - D Calm the pregnant woman
  - E Introduce antispasmodics
  
- 6 . An ambulance paramedic was called to the pregnant woman. Pregnancy 40 weeks. Complaints of cramping pain in the lower abdomen for 20 s after 5-6 minutes. To diagnose, your actions:
  - A Pregnancy 40 weeks. And the period of childbirth. Hospitalization
  - B Pregnancy 40 weeks. Preliminary period
  - C Pregnancy 40 weeks. II period of childbirth. Hospitalization

D Pregnancy 40 weeks. Precursors of childbirth E Pregnancy 40 weeks. III period of childbirth. Hospitalization

7 . The paramedic was called to the woman in labor on the 5th day of the postpartum period in which the body temperature rose to 38°C. Appeared: pain in the lower abdomen, cloudy lochia, with an unpleasant odor. Your actions:

- A Hospitalized
- B Prescribe antipyretic drugs
- C Prescribe uterotonic and antipyretic drugs
- D Cold on the string of life
- E Assign vaginal douching

8 . An ambulance paramedic was called to the maternity hospital, which complains of severe painful contractions. On examination, restless, the contraction ring is high and obliquely placed, the uterus is in the shape of an "hourglass", the external genitalia are swollen. What complication should be suspected?

- A Threat of uterine rupture
- B Rupture of the uterus
- C Rupture of the cervix
- D Excessive labor
- E Perineal rupture

9 . The paramedic transports the pregnant woman to the delivery with a gentle presentation of the fetus. What is the typical method of resolving childbirth in this presentation of the fetus?

- A Manual assistance according to Tsovyanov II
- B Cesarean section
- C Extraction of the fetus behind the pelvic end
- D Manual assistance by Tsovyanov I
- E Skin and head forceps

10 . An ambulance paramedic was called to the woman, who developed a sharp pain in the lower abdomen after a sharp turn. History: ovarian cyst. The symptom of peritoneal irritation is positive. Paramedic tactics:

- A Hospitalization
- B Introduction of antispasmodics. Hospitalization
- C Administration of antispasmodics and analgesics
- D It is recommended to consult a gynecologist at the hospital
- E Make a cleansing enema

**And so 30 problems with the subsequent analysis of typical errors.**

## **6. Evaluation criteria and tools for diagnosing learning outcomes**

### **TEACHING METHODS**

a) practical classes, b ) independent work of students, c ) consultations.

Thematic plans of practical classes and VTS reveal the problematic issues of the relevant sections of medicine.

Practical exercises performed on clinical s database s departments. The method of organizing practical classes requires:

- to make the student a participant in the process of providing medical care to patients from the moment of their hospitalization, examination, diagnosis, treatment to discharge from the hospital;

- to master professional practical skills; skills of teamwork of students, doctors, other participants in the process of providing medical care;
- to form in the student, as in the future specialist, an understanding of responsibility for the level of their training, its improvement during training and professional activity.

To implement this, it is necessary at the first lesson of the relevant section to provide the student with a detailed plan of work in the clinic and provide conditions for its implementation. This plan should include:

- research that the student must master (or get acquainted with);
- algorithms (protocols) of examinations, diagnosis, treatment, prevention in accordance with the standards of evidence-based medicine;
- supervision of patients to be carried out by the student during the cycle;
- reports of the patient's medical history in the study group, at clinical rounds, practical conferences.

**Patient supervision involves:**

- 1) clarification of the patient's complaints, medical history and life, conducting a survey of organs and systems;
- 2) conducting a physical examination of the patient and determining the main symptoms of the disease;
- 3) analysis of laboratory and instrumental examination data;
- 4) formulation of the diagnosis;
- 5) appointment of treatment;
- 6) determination of primary and secondary prevention measures;
- 7) report on the results of examination of the patient by a team of students in the study group, analysis under the guidance of the teacher of the correctness of diagnosis, differential diagnosis, scheduled examination, treatment tactics, assessment of prognosis and performance, prevention.

In practical classes, students are encouraged to keep protocols in which it is necessary to enter brief information about the patients examined during the practical lesson, diagnosis, examination plan and prescribed treatment.

VTS and individual work of students is 30-56% in the curriculum. It includes:

- ✓ pre-classroom and extracurricular training of students on the course of the discipline;
- ✓ work of students in departments on the clinical base of the department, including laboratories and departments (offices) of functional diagnostics, interpretation of data of laboratory and instrumental research methods in pathology in extracurricular time;
- ✓ acquisition of practical skills through work with patients;
- ✓ individual VTS (speech at the scientific-practical conference of the clinic, writing articles, report of the abstract at the practical lesson, participation in the work of the student group, competitions in the discipline, etc.);
- ✓ work in a computer class in preparation for the Step-2 exam;
- ✓ elaboration of topics that are not included in the classroom plan.

Teachers of the department provide the opportunity to perform VTS. During practical classes, control and evaluation of its implementation are carried out. Topics submitted for self-study are evaluated during the final control.

## METHODS OF CONTROL

It is recommended to conduct practical classes with the inclusion of:

- 1) control of the initial level of knowledge with the help of tests;
- 2) survey of students on the topic of the lesson;

3) management of 1-2 patients with diseases and conditions corresponding to the subject of the lesson, followed by discussion of the correctness of diagnosis, differential diagnosis and treatment with the use of evidence-based medicine and in accordance with National and European guidelines and protocols;

4) consideration of the results of additional research methods (laboratory and instrumental), which are used in the diagnosis and differential diagnosis, consideration of which is provided by the topic of practical training;

5) control of the final level of knowledge on the test tasks made in the format of Step-2.

Assimilation of the topic (current control) is controlled in a practical lesson in accordance with specific goals, assimilation of semantic sections - in practical final lessons. It is recommended to use the following tools to assess the level of preparation of students: computer tests, solving situational problems, conducting laboratory research and interpretation and evaluation of their results, analysis and evaluation of instrumental research and parameters characterizing human body functions, control of practical skills.

**The current control** is carried out by the teacher of the academic group after the students have mastered each topic of the discipline and grades are set using a 200-point scale of the university, which corresponds to the 200-point scale of ECTS.

**Final lesson (SO)** - is conducted after the logically completed part of the discipline, consisting of a set of educational elements of the work program, which combines all types of training (theoretical, practical, etc.), elements of educational and professional program (academic discipline, all types of practices), certification), implemented by appropriate forms of the educational process. The department provides information for preparation for the software on the information stand and on the website of the departments and the following materials:

- basic and anchor test tasks LII "Step-2";
- list of theoretical questions (including questions on independent work);
- list of practical skills;
- a list of drugs, prescriptions of which must be prescribed by the student;
- list of medical records;
- criteria for assessing the knowledge and skills of students;
- schedule of students completing missed classes during the semester.

**Conducting the final lesson:**

1. Solving a package of test tasks on the content of educational material, which includes the following:

- basic test tasks in the discipline, which cover the content of the educational material of the final lesson in the amount of **30 tests** that correspond to the database "Step-2". Evaluation criterion - **70.0% of** correctly solved tasks; "Passed" or "did not pass");

2. Assessment of the development of practical skills (assessment criteria - "performed" or "failed").

3. During the assessment of the student's knowledge on theoretical issues, as well as questions for independent work, which are included in this final lesson, the student is given a grade on a multi-point scale, as well as a grade on IPA .

4. Tasks for practical and professional training that reflect the skills and abilities during the supervision of thematic patients, evaluation of the results of laboratory and instrumental research methods and the choice of treatment tactics, which are defined in the list of work program of the discipline.

5. Tasks for diagnosis and care in emergencies.

The final lesson is accepted by the teacher of the academic group . Forms of software should be standardized and include control of all types of training (theoretical, practical, independent, etc.), solving test tasks "Step-2", provided by the work program of the discipline . At the beginning of the lesson students solve test tasks "Step-2" in the amount of 30 tasks, then at the patient's bedside the group teacher takes practical skills, which are assessed "performed", "failed", then

students write written work, each ticket contains 5 theoretical questions, which include questions made for independent work, then an oral interview with the student, followed by a grade for the software.

**Final control** is carried out after the completion of the study of the discipline in the form of final control work (PKR).

**PKR** is conducted by the teacher of the academic group at the last lesson. Students who have scored at least 70 points as a result of the current control are admitted to the RCC. The maximum score is 120.

**Assessment of individual student tasks.** The meeting of the department approved a list of individual tasks (participation with reports in student conferences, profile competitions, preparation of analytical reviews with presentations with plagiarism) and determined the number of points for their implementation, which can be added as incentives (**not more than 10**). Points for individual tasks are accrued to the student only once as a commission (commission - head of the department, head teacher, group teacher) only if they are successfully completed and defended. In no case may the total amount of points for IPA exceed 120 points.

**Assessment of students' independent work.** Assimilation of topics that are submitted only for independent work is checked during the final classes and final tests.

In order to assess the learning outcomes of the discipline is the **final control in the form of a test**. Only students who have passed both final tests (according to units 1 and 2) in the discipline are admitted to the test .

The test in the discipline " Industrial Medical Practice " is a process during which I am tested for the 4th year:

- level of theoretical knowledge;
- development of creative thinking;
- skills of independent work;
- competencies - the ability to synthesize the acquired knowledge and apply them in solving practical problems.

The department provides the following materials for preparation for the test on the information stand and on the website of the department:

- basic and anchor test tasks "Step";
- list of theoretical questions (including questions on independent work);
- list of practical skills;
- a list of drugs, prescriptions of which must be prescribed by the student;
- criteria for assessing the knowledge and skills of students;
- the schedule of working off by students of the missed employment.

#### **Conducting a test in.**

1. Assessment of theoretical knowledge on the tickets drawn up at the department, which contain two theoretical questions from the sections of the discipline, which were studied during the academic year.

2. Assessment of practical skills acquisition .

3. Evaluation of the solution of the situational problem.

The distribution of points in the assessment - see above in the example of the test ticket. The maximum score on the test is 80 points, the test is considered passed if at least 50 points are scored (see the table below).

#### **Distribution of points received by students**

As mentioned above, a 200-point scale is used in the evaluation.

From practical medicine practice 15 practical classes (30 academic hours).

For practical classes, the maximum amount of points is 120, the minimum - 70.

Accordingly, the **maximum score for each practical lesson** is: 120 points: 15 lessons = **8 points**. The **minimum score** is 70 points: 15 classes = **4.7 points**.



A score lower than 4.7 points means "unsatisfactory", the lesson is not credited and must be practiced in the prescribed manner.

On the differential test, the maximum positive score is 80 points, the minimum - 50.

#### **Assessment of student performance**

<b>Type of activity (task)</b>	<b>Maximum number of points</b>
Practical classes from 1 to 15	8 points in each lesson
Together for 15 practical classes	120
Differentiated Peninsulation test	80
Together for practical classes and credit	200

#### **Criteria for assessing knowledge**

**A student's answer is evaluated** with a score of 8 points in the practical lesson and 71-80 points in the test (A on the ECTS scale and 5 on the national scale) **if it demonstrates deep knowledge of all theoretical principles and ability to apply theoretical material for practical analysis and has no inaccuracies.**

With a score of 6-7 points in the practical lesson and 61-70 points in the test (B and C on the ECTS scale and 4 on the national scale) the **answer is evaluated if it shows knowledge of all theoretical principles, ability to apply them in practice, but some fundamental inaccuracies are allowed.**

With a score of 4.7 points in the practical lesson and 50-60 points in the test (D and E on the ECTS scale and 3 on the national scale) **the student's answer is evaluated provided that he knows the main theoretical principles and can use them in practice.**

## **7. RECOMMENDED BOOKS**

### **7.1. Basic**

1. V.G. Perederiy, SM Weaver. Clinical lectures on internal medicine in 2 volumes. - Kyiv: Manuscript, 1998.
2. Sh.M. Ganja, V.M. Kovalenko, NM Fur coat, etc .. Internal diseases. К .: Health, 2002. - 992p.
3. N.I. Shoemaker, A.V. Pidaev, TM Benz et al. Standards of practical skills in therapy. - Kyiv: Glavmeddruk, 2005. - 540p.
4. Modern classifications and principles of formulation of diagnoses in the clinic of internal medicine: textbook. way. / О.О. Абрагамович, Є.С. Абрагамович, У.О. Абрагамович, О.В. Brodyk, IO Vynnyk-Zhuraeva; Lviv. nat. honey. Univ. D. Halytsky, Lviv. reg. grace. Hope of the Nation Foundation. - L .: PP "Kvart", 2005. - 322 p.
5. Modern classifications and standards for the treatment of common diseases of the internal organs: reference. / Ed .: Yu.M. Bridge; Vinnytsia. nat. honey. Univ. MI Pirogov. - 9th ed., Supplement. and reworked. - Vinnytsia: DP "DKF", 2007. - 479 p.
6. Algorithms for diagnosis and treatment of emergencies in therapeutic practice / E.M. Starodub, OE Samogalska, B.I. Rudik, F.A. Zvershanovsky, LP Martyniuk, N.I. Yarema, SE Shostak, OI Kriskiv. - Т .: TSMU "Ukrmedkn.", 2008. - 195 p.
7. Clinical endocrinology: a textbook / VN Khvorostinka, VN Лесовой, Т.А. Moiseenko. - Н .: Fakt, 2008. - 541 p.
8. Syndrome diagnostics in gastroenterology: textbook. allowance / A.E. Dorofeev, VM Berezov, NN Руденко, O.B. Tomasz. - Donetsk: Weber, 2008. - 263 p.
9. Kovalchuk L.Ya., Spizhenko YP, Saenko VF, Knyshev GA, Nichitaylo M.Yu. Hospital surgery. - Ternopil: Ukrmedknyha, 1999.

10. Practical skills in operative surgery: Textbook. way. / Ю.Т. Akhtemiychuk, VP Pishak, OM Slobodyan, OV Cigarette. - Chernivtsi: City, 2005. - 152 p.
11. Surgical diseases: Textbook. for students. higher honey. textbook lock / P.Ya. Chumak, A.Ya. Kuznetsov, MO Рудий, О.П. Ковальов. - Т .: ТДМУ: Укрмедкнига, 2006. - 487 с. 12. Surgical diseases: a textbook / edited by prof. PG Kondratenko.- Donetsk, 2006. - 816 p.
13. Manual of standards of medical manipulation techniques and practical skills in general surgery / VV Skiba, VV Поканевич, О.В. Ivanko, А.С. Карпенко, С.Й. Khmelnytsky, V.Ya. Stadnik, А.К. Petrov; Acad. Science Higher. school Of Ukraine, Kyiv. honey. UANM University. - К., 2007. - 141 с.
14. Urgent conditions in surgery: a textbook / I.V. Rozdolsky. - 2nd ed., Ster .. - К .: Medicine, 2009. - 144 p. 17
15. Children's diseases. For order. VMSidelnikov, VVBerezhny. К .: Health, 1999. - 734 p. 16.Maidannik VG Pediatrics. Textbook (2nd edition, corrected and supplemented). - Харьков: Фолио, 2002. - 1125 с.
17. Algorithms of practical skills in pediatrics: Textbook. way. / О.Є. Fedortsiv, ТО Воронцова, У.М. Tsidilko, NO Ліщенко, Г.О. Lutsuk; Ternopil. state honey. Univ. Gorbachevsky. Caf. pediatrics. - Т .: TSMU; Ukrmedkнига, 2006. - 166 p. 18. Diagnosis, treatment and prevention of inflammatory diseases of the respiratory system in children / VG Maidannik, Yu.V. Mitin. - К .: ООО "ІІЦ Медпромінфо", 2006. - 288 с. 19.Pediatrics: a textbook / SK Tkachenko, RI Potsyurko, Yu.S. Korzhinsky, AI Mostyuk, EG Tkachenko, MP Альфьорова. - 3rd ed., Reworked. and add. - К .: Здоров'я, 2006. - 771 с.
20. Intensive care in pediatrics: textbook. way. / С.М. Basmanov, GI Belebeziev, A.V. Belyaev, MA Georgianz, M.B. Dmitrieva. - К .: Медицина, 2008. - 520 с.
21. Urgent conditions in pediatrics: textbook. way. / R.I. Potsyurko, LS Leskiv, MM Monastyrska, IV Pitula, O.Ya. Nightingale. - К .: Медицина, 2009. - 192 с.
22. Obstetrics for order. VI Grishchenko -Kharkiv, Basis 1996.-608p.
23. Zaporozhyan VM Tsegelsky MR, Rozhkovskaya NM Obstetrics and gynecology. Textbook: in 2 volumes. Vol.1. - Odessa, 2005.-420p.
24. Savelyeva GM Obstetrics and gynecology.-GEOTAR Medicine, 1997.-735p. 25. Emergencies in obstetrics: Textbook. for students. higher honey. textbook lock IV level of accreditation and practice. obstetricians-gynecologists / A.N. Gaystruk, N.A. Gaystruk, OV Frost. - Vinnytsia: Kniga-Vega, 2004. - 361 p.
26. Emergencies in obstetrics: textbook. way. for students. / І.Б. Nazarova. - 2nd type. - К .: Медицина, 2008. - 102 с. 27. Obstetric pathology: Atl. / В.М. Zaporozhyan, VP Mishchenko. - О .: Odessa. medun-t, 2005. - 291 p.

## 7.2.Auxiliary

1. Adapted evidence-based clinical guideline "Viral hepatitis C in adults" , Kyiv - 2016.
2. Adapted evidence-based clinical guideline "Viral hepatitis B (chronic)" , Kyiv - 2016.
3. Adapted evidence-based clinical guideline "Viral hepatitis B. WHO position" , Kyiv - 2016.
4. Algorithms in the practice of gastroenterologist // Edited by O. Babak. - Kyiv: LLC "Library of Health of Ukraine", 2015. - 162 p.
5. Internal Medicine. In 3 vols. Vol. 1 / Ed. prof. К.М. Amosova. - К .: Медицина, 2008. - 1056 с.
6. Internal Medicine. In 3 vols. Vol. 2 / AS Svintsytsky, LF Konoplyova, YI Feshchenko, etc .; For order. prof. К.М. Amosova. - К .: Медицина, 2009. - 1088 с.
7. WHO. Newsletter No. 387 February 2016 <http://www.who.int/mediacentre/factsheets/fs387/>

8. Diagnosis and treatment of diseases of the blood system: Manual [for students. and interns]: to the 170th anniversary of the Nat. honey. Bogomolets University / AS Svintsytsky, SA Guseva, SV Skrypnychenko, IO Rodionova. - K.: Медкнига, 2011. - 335 с.
9. Zak KP, Tronko MD, Popova VV, Butenko AK Diabetes, immunity and cytokines. Kyiv: Book-plus, 2014. - 500 p.
10. Classification of diseases of the digestive system: a handbook / edited by NV Харченко / О.Я. Babak, О.А. Голубовська, Н.Б. Hubergritz, А.Е. Dorofeev, TD Zvyagintseva, IM Skripnik, S.M. Weaver, G.D. Fadeenko, NV Харченко, М.Б. Shcherbinina - Kirovograd: PE "Polyum", 2015. - 54 p.
11. Clinical and radiological atlas for the diagnosis of lung diseases: a textbook / L.D. Todoriko, IO Semyaniv, A.V. Boyko, VP Шаповалов. - Chernivtsi: Medical University, 2014. - 342 p.
12. Order of the Ministry of Health of Ukraine dated 03.08.2012 № 600 "On approval and implementation of medical and technological documents for standardization of medical care for dyspepsia." Unified clinical protocol of primary care "Dyspepsia".
13. Order of the Ministry of Health of Ukraine №1118 dated 21.12.2012 "Unified clinical protocol of primary and secondary (specialized) medical care" Type 2 diabetes mellitus".
14. Fundamentals of nephrology / ed. М.О.Колесника. - Kyiv: Health of Ukraine Library, 2013. - 340 p.
15. Pr acticum of internal medicine: textbook. pos. / К.М. Amosova, LF Konoplyova, LL Sidorova, GV Mostbauer et al. - Kyiv: Ukrainian Medical Bulletin, 2012. - 416 p.
16. Standards for providing medical care to patients with pathological conditions of the thyroid and thyroid glands under the influence of negative environmental factors (third edition, extended) / Ed. O.B. Kaminsky. - Kharkiv: Uright, 2017. - 312p.
17. Todoriko LD Basic syndromes and methods of examination in pulmonology and tuberculosis: a textbook / L.D. Todoriko, A.V. Воуко. - Київ: Медкнига, 2013. - 432 с.
18. Tronko ND, Sokolova LK, Kovzun EI, Pasteur IP Insulin therapy: yesterday, today, tomorrow. - K.: Медкнига, 2014. - 192с.
19. 100 selected lectures on endocrinology. / Ed. Yu.I. Караченцева, А.В. Казакова, Н.А. Kravchun, IM Ilyina. - X: 2014. - 948 с.
20. *International* Textbook of Diabetes Mellitus, 2 Volume Set. Ed. by RA Defronzo, E. Ferrannini, P. Zimmet, G. Alberti. 4<sup>th</sup> Edition, 2015. - 1228p.
21. Harrison's Endocrinology. Ed. by J. Larry Jameson, Mc Graw - Hill., New York, Chicago, Toronto. ea 4rd edition, 2016. - 608 p.
22. *Williams* Textbook of Endocrinology. Ed. by Henry M. Kronenberg, Shlomo Melmed, Kenneth S. Polonsky, P. Reed Larsen. Saunders. 13 edition, 2015. - 1936p.

### 7.3.Information resources

1. <https://www.aasld.org/>
2. <http://www.acc.org/guidelines#sort=%40foriginalz32xpostedz32xdate86069%20descending>
3. <https://www.asn-online.org/education/training/fellows/educational-resources.aspx#Guidelines>
4. [www.brit-thoracic.org.uk/standards-of-care/guidelines](http://www.brit-thoracic.org.uk/standards-of-care/guidelines)
5. <https://cprguidelines.eu/>
6. <https://www.diabetes.org>
7. <https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines>
8. <http://www.eagen.org/>
9. <http://www.ers-education.org/guidelines.aspx>
10. <http://www.enp-era-edta.org/#/44/page/home>
11. [https://www.eular.org/recommendations\\_management.cfm](https://www.eular.org/recommendations_management.cfm)
12. <http://www.european-renal-best-practice.org>

13. <http://www.esmo.org/Guidelines/Haematological-Malignancies>
14. <https://ehaweb.org/organization/committees/swg-unit/scientific-working-groups/structure-and-guidelines/>
15. <http://www.gastro.org/guidelines>
16. [www.ginasthma.org](http://www.ginasthma.org)
17. <http://goldcopd.org>
18. <http://inephrology.kiev.ua/>
19. [http://www.ifp.kiev.ua/index\\_ukr.htm](http://www.ifp.kiev.ua/index_ukr.htm)
20. <http://kdigo.org/home/guidelines/>
21. <http://mtd.dec.gov.ua/index.php/uk/>
22. <https://www.nice.org.uk>
23. <http://www.oxfordmedicaleducation.com/>
24. [http://professional.heart.org/professional/GuidelinesStatements/UCM\\_316885\\_Guidelines-Statements.jsp](http://professional.heart.org/professional/GuidelinesStatements/UCM_316885_Guidelines-Statements.jsp)
25. <https://www.rheumatology.org/Practice-Quality/Clinical-Support/Clinical-Practice-Guidelines> <https://www.thoracic.org/statements/>
26. <http://www.strazhesko.org.ua/advice>
27. <https://www.thyroid.org>
28. <https://www.ueg.eu/guidelines/>
29. <http://ukrgastro.com.ua/>
30. Website of the Center for Public Health of the Ministry of Health of Ukraine: <http://phc.org.ua/>
31. [ Electronic resource ]. - access mode <https://www.cdc.gov/>
32. Global AIDS Update [Electronic resource] / UNAIDS, 2016. - Access mode: [http://www.unaids.org/sites/default/files/media\\_asset/global-AIDS-update2016\\_en.pdf](http://www.unaids.org/sites/default/files/media_asset/global-AIDS-update2016_en.pdf)