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
Bilchenko N.M.
_____
2019 year

CURRICULUM WORK PROGRAM

"INTERNAL MEDICINE"

Academic year 2020-2021

Area of knowledge 22 "Health care»
(code and name of the field of knowledge)
Specialty 222 «**Medicine**» - second (master's) level
(code and name of the specialty)

VI year

Developer	Zak M.Y.	
Head of the Department of Developer	Zak M.Y.	
Guarantor of the educational program	Klimenko M.O.	
Director of the Institute	Grishchenko G.V.	
Head of IMD	Shkirchak S.I.	

Mykolayiv – 2019

Description of the discipline

Characteristic	**Characteristics of the discipline**	
Name of discipline	Internal Medicine	
Branch of knowledge	22 "Health care"	
Specialty	222 "Medicine"	
Specialization (if any)		
Educational program	Medicine	
Level of higher education	Master	
Discipline status	Selective	
Curriculum	6th	
Academic year	2020-2021	
Semester numbers:	Full-time	Part-time form
	11th, 12th	
Total number of ECTS credits / hours	14.5 credits (7.0 / 7.5) / 435 hours	
Course structure: - lectures - practical training - hours of independent work of students	Full-time	Part-time form
	- 270 (130/140) 165 (80/85)	
Percentage of classroom load	62%	
Language of instruction	Ukrainian	
Form of intermediate control (if any)	Certification for the 11th semester	
Form of final control	Credit - 12th semester	

2. **Purpose, tasks and planned learning outcomes**

The purpose of teaching / studying the discipline "Internal Medicine" is for students to master the methods and techniques of clinical examination of the patient, the peculiarities of professional communication between doctor and patient, subjective and objective manifestations of diseases (symptoms and syndromes), causes and mechanisms of their origin and development (semiology). diagnosis, treatment tactics, preventive measures at the inpatient stage of treatment of the patient. Students study the modern practice of internal medicine by curating mostly hospitalized patients with the main symptoms and syndromes, various clinical courses of diseases and their complications, in practice studying modern approaches to diagnosis, differential diagnosis, treatment and prevention of diseases and syndromes in each section and internal diseases standards of diagnosis and treatment, evidence-based medicine data, as well as emergencies in the internal medicine clinic.

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 according to the traditions of the domestic therapeutic school
2) methodically correct questioning and examination of patients with pathology of internal organs
3) interpretation of the relationship between the patient's complaints and a preliminary assessment of the affected body system
4) generalization of results of interrogation and inspection of patients and distinction on their basis of 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) providing emergency medical care at the hospital stage of treatment.
8) drawing up a plan for examination of the patient, to interpret the results of laboratory and instrumental studies in the most common diseases in the clinic of internal medicine and their complications.

Prerequisites for studying the discipline (interdisciplinary links). Internal medicine as a 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) creates therapeutic clinical bases for further mastering by students of clinical disciplines (internal medicine, pediatrics, surgery, obstetrics and gynecology, infectious diseases, general practice (family medicine), palliative and hospice medicine, etc.), which provides integration of teaching with basic clinical disciplines, ability to use this knowledge in the process of further training and in the professional activity of a doctor;

c) forms the therapeutic basis of clinical thinking;

d) provides the possibility of therapeutic analysis of clinical situations for further diagnosis, treatment, prevention of diseases.

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

- Master the theoretical knowledge needed to detect human diseases
- Master the practical techniques and methods of physical and laboratory-instrumental examination of patients
- Master the general methodological approaches to clinical examination of the patient
- Diagnosis of certain internal human diseases with their typical manifestations

- Formation of students' moral, ethical and deontological qualities in professional communication with the patient
- Justify and formulate a preliminary diagnosis of the most common diseases in the clinic of internal medicine.
- Make a plan for examination of the patient, interpret the results of laboratory and instrumental studies in the most common diseases in the clinic of internal medicine and their complications.
- Carry out differential diagnosis, substantiate and formulate a clinical diagnosis of major diseases in the clinic of internal medicine.
- To determine the tactics of management (recommendations regarding the regime, diet, treatment, rehabilitation measures) of the patient with the most common diseases in the internal medicine clinic.
- Prescribe non-drug and drug treatment, including prognosis-modifying, the most common diseases in the clinic of internal medicine.
- Carry out non-drug and drug primary and secondary prevention of major diseases in the clinic of internal medicine.
- To determine the prognosis and efficiency of patients with major diseases in the clinic of internal medicine.
- Diagnose and provide medical care in emergencies in the internal medicine clinic.
- Apply the basic algorithms of intensive care in emergencies in the clinic of internal medicine.
- Perform medical manipulations.
- Maintain medical records at the internal medicine clinic.
- Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination.

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 of studying the state of the broncho-pulmonary system. Etiology, pathogenesis, clinic, diagnosis, treatment of the most common diseases of the respiratory system.

- Physical and instrumental methods of studying the state of the cardiovascular system. Etiology, pathogenesis, clinic, diagnosis, treatment of the most common diseases of the cardiovascular system.

- The main methods of research of the organs of the gastrointestinal tract and excretory system. Etiology, pathogenesis, clinic, diagnosis, treatment of the most common diseases of the gastrointestinal tract and urinary system.

- Endocrine diseases, pathology of the blood system. Etiology, pathogenesis, clinic, diagnosis and treatment of diseases.

- Rheumatological and pulmonological diseases. Etiology, pathogenesis, clinic, diagnosis and treatment of diseases.

- Providing emergency care at the hospital stage of treatment of the above diseases.

- TO 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, spirograms, immunograms, hormonal background;

• identify regenerative, degenerative, 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;

• provide emergency hospital care.

- HAVE COMPETENCIES

• on the application of knowledge of internal 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;

• about the main perspective methods of research in internal medicine for early diagnosis and treatment of the most common diseases of 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 (ZK) - ZK1-ZK3 OPP:

ZK1. Ability to abstract thinking, analysis and synthesis, the ability to learn and master modern knowledge.

ZK2. Ability to apply knowledge in practical situations.

ZK3. Knowledge and understanding of the subject area and understanding

- professional (FC) - FC1 - FC6, FC 11, FC 16, FC 18 OPP:

- FC 1. Patient interviewing skills.

- FC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

- FC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

- FC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

- FC 5. Ability to determine the nature of nutrition in the treatment of diseases.

- FC 6. Ability to determine the principles and nature of treatment of diseases.

- FC 11. Skills to perform medical manipulations.

- FC 16. Ability to determine the tactics of management of persons subject to dispensary supervision.

- FC 18. Ability to keep medical records.

According to the educational-professional **program, the expected program learning outcomes (PRN) include skills PRN11, PRN13-PRN18, PRN21-PRN28, PRN30, PRN 32, PRN 33, PRN 35, PRN 41 OPP:**

- 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 the 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 areas of the heart and superficial vessels, determination of percussion boundaries 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, chest palpation, percussion and auscultation lungs);

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

• 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 data 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 preliminary data of the patient's anamnesis, physical data examination of the patient, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

• Be able to establish the most probable or syndromic diagnosis disease (according to list 2) by taking a reasonable solutions, by comparison with standards, using preliminary patient history and examination data patient, based on the leading clinical symptom or syndrome, using knowledge about man, 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 laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, on the basis of the most probable or syndromic diagnosis, according to standard schemes, using knowledge about man, his organs and systems, adhering to the 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, data laboratory and instrumental examination of the patient, knowledge of man, his organs and systems, adhering to the relevant 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, data laboratory and instrumental examination of the patient, conclusions differential diagnosis, knowledge of man, his organs and system, adhering to the relevant ethical and legal norms.

- **PRN 15**. To determine the necessary mode of work and rest 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, based on a previous clinical diagnosis , using knowledge about a 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.

- **PRN 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 a previous clinical diagnosis, using knowledge about a 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.

- **PRN 17**. To determine the nature of treatment (conservative, operative) 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 a previous clinical diagnosis, using knowledge about a 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. 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.

-**PRN 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 facilities, 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 21**. Organize medical and evacuation measures among the population and servicemen, in emergency situations, including in the field, during the detailed stages of medical evacuation, taking into account the existing system of medical and evacuation support.

- **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 about the person, his organs and systems, adhering to relevant ethical and legal norms, by making an informed decision and using standard techniques.

- **PRN 24.** In a medical institution on the basis of anamnestic data, general examination and gynecological examination of a woman, using knowledge of a woman's reproductive organs, adhering to the relevant ethical and legal norms, by making an informed decision, using a standard procedure:

• evaluate the patient and medical eligibility criteria method of contraception;
• determine the plan of examination of the patient before choosing a method contraception;
• provide family planning counseling;
• select a modern method of contraception for different categories people.

- **PRN 25.** To form, in the conditions of a health care institution, its subdivision 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 26.** Implement a system of anti-epidemic and preventive measures in a health care facility, its unit on the basis of data on the health of certain populations and the presence of environmental impact, using existing methods, within the primary health care. sanitary assistance to the population, regarding:

• organization of nutrition, water supply;
• mode of activity and rest;
• formation of a favorable production environment;
• primary prevention of diseases and injuries;
• vaccine prophylaxis;
• prevention of bad habits;
• prevention of unwanted pregnancies;

promoting a healthy lifestyle.

- **PRN 27**. Implement a system of primary prevention measures, based on data on the health of the population served and the presence of the determinants of health, in the health care

facility and outside it using existing methods, in within the framework of primary health care to the population:

• sanitary and educational measures to prevent the occurrence of infectious and non-infectious diseases, injuries and promote a healthy lifestyle;

• organization of rational nutrition, safe social and living conditions, water supply;

mode of activity and rest.

- **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**. Carry out in the conditions of a health care institution, its subdivision:

• detection and early diagnosis of infectious diseases (according to list2);

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

- **PRN 32.** In a 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 the relevant ethical and legal norms, by adopting reasonable decision:

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

• determine the tactics of examination and primary prevention of healthy people persons subject to dispensary supervision;

• calculate and prescribe the necessary food for children 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 facility 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 to identify the most important non-infectious diseases;

• evaluate in the dynamics and in comparison with the average static data on 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 on the provision of medical care, developed on the basis of evidence medicine;

• participate in the development of local protocols for medical care assistance;

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

• identify factors that hinder the improvement of quality and safety 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. MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN THE THERAPEUTIC CLINIC.

SECTIONS:

1. Management of patients with the main symptoms and syndromes in the cardiac clinic (90 / 1.75).
2. Management of patients with the main symptoms and syndromes in the rheumatology clinic (21 / 1.75).
3. Management of patients with the main symptoms and syndromes in the gastroenterological clinic (44 / 1.75).
4. Management of patients with the main symptoms and syndromes in the pulmonology and allergology clinic (55 / 1.75).

BLOCK 2. EMERGENCY CONDITIONS IN THERAPY
SECTIONS:

5. Management of patients with the main symptoms and syndromes in the endocrinology clinic (28 / 1.07).
6. Management of patients with the main symptoms and syndromes in the nephrology clinic (38 / 1.07).
7. Management of patients with the main symptoms and syndromes in the hematology clinic (43 / 1.07).
8. Emergencies in cardiorheumatology (38 / 1.07).
9. Emergencies in pulmonology and allergology (21 / 1.07).
10. Emergencies in gastroenterology and nephrology (34 / 1.07).
11. Emergencies in endocrinology and hematology (23 / 1.07).

1.

BLOCK 1. MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN THE THERAPEUTIC CLINIC.

TABLE OF CONTENTS 1
"MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN THE CARDIOLOGICAL CLINIC"

Specific goals

Students must be able to:

- Conduct interviews and physical examinations of patients with the main symptoms and syndromes in the cardiac clinic.
- Preliminary diagnosis of major cardiovascular diseases and identify their complications.
- Make a plan for examination of patients and justify the use of each non-invasive and invasive diagnostic method used in cardiology.
- Evaluate the results of basic instrumental and laboratory diagnostic methods in the cardiac clinic.
- Make a differential diagnosis of the main symptoms and syndromes in a cardiac clinic.
- Justify and formulate the clinical diagnosis of major diseases of the cardiovascular system.
- Determine the prognosis of patients with major cardiovascular diseases.
- Prescribe non-drug and drug treatment, including prognosis-modifying, to carry out non-drug and drug primary and secondary prophylaxis at the basic diseases in cardiac clinic.
- Measure blood pressure and interpret the data obtained.
- Record and interpret ECG in 12 leads.
- Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination.

Topic 1. Management of a patient with hypertension

The main diseases and conditions accompanied by arterial hypertension: essential and secondary arterial hypertension, in particular, renal (renovascular, renoparenchymal); endocrine (Itsenko-Cushing's syndrome and disease, pheochromocytoma, primary hyperaldosteronism, thyrotoxicosis); aortic coarctation, isolated systolic arterial hypertension, arterial hypertension during pregnancy. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by hypertension. Primary and secondary prevention. Forecast and efficiency.

Topic 2. Management of a patient with chronic (recurrent) chest pain.

The main diseases and conditions accompanied by chronic chest pain: diseases of the cardiovascular system (ischemic heart disease, in particular, stable angina, stenosis of the aortic orifice, hypertrophic cardiomyopathy, neurocirculatory dystonia); diseases of the digestive system (gastroesophageal reflux disease, cardiospasm, esophageal spasm, hernia of the esophageal orifice of the diaphragm, peptic ulcer of the stomach and duodenum); diseases of the musculoskeletal system (osteochondrosis of the thoracic spine); panic attack syndrome. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by chronic chest pain. Primary and secondary prevention. Forecast and efficiency.

Topic 3. Management of a patient with acute chest pain.

The main diseases and conditions accompanied by acute chest pain: diseases of the cardiovascular system (acute coronary syndrome, acute pericarditis, acute myocarditis, coronary heart disease, aortitis, aortic dissection, pulmonary embolism); respiratory diseases (pleurisy, pneumothorax); diseases of the musculoskeletal system (myositis, costochondritis); diseases of the nervous system (shingles, intercostal neuralgia). Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by acute chest pain. Primary and secondary prevention. Forecast and efficiency.

Topic 4. Management of a patient with cardiac arrhythmias.

Differential diagnosis of supraventricular and ventricular arrhythmias, atrial fibrillation and flutter. Tactics of patient management. The main classes of antiarrhythmic drugs, indications for their use, side effects. Electropulse therapy. Non-drug treatments for arrhythmias, including catheter procedures. Primary and secondary prevention. Forecast and efficiency.

Topic 5. Management of a patient with impaired cardiac conduction.

Violations of sinoatrial conduction, atrioventricular blockade of various degrees, blockade of the legs of the His bundle. Syndrome of sinus node weakness. Frederick's syndrome. ECG diagnostics. Tactics of patient management, additional instrumental methods of examination. Pacemaking methods. Primary and secondary prevention, prognosis and efficiency.

Topic 6. Management of a patient with shortness of breath.

The main diseases and conditions accompanied by shortness of breath: 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; pulmonary vascular pathology, in particular pulmonary embolism and chest or respiratory muscle disease; anemia; hyperventilation syndrome in neurosis and neurocirculatory dystonia; lesions of the respiratory center in organic diseases of the brain. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by shortness of breath. Primary and secondary prevention. Forecast and efficiency.

Topic 7. Management of a patient with edema syndrome

The main diseases and conditions accompanied by edema syndrome: local (venous edema: chronic venous insufficiency, venous outflow disorders, deep vein thrombophlebitis; lymphatic

edema: inflammatory, obstructive; edema in the musculoskeletal system: arthritis, tendonitis; orthostatic, idiopathic and general edema (nephrotic syndrome, cardiovascular disease with development of heart failure, liver disease, in particular, liver cirrhosis and other hypoproteinemic conditions: exudative enteropathy, malabsorption syndrome, alimentary and cachectic diseases; edema caused by medication). Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnosis. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by edema m syndrome. Primary and secondary prevention. Forecast and efficiency.

Topic 8. Management of a patient with pulmonary hypertension.

Major diseases and conditions accompanied by pulmonary hypertension: idiopathic, hereditary, associated with medication or toxins, connective tissue diseases (systemic lupus erythematosus, systemic scleroderma), HIV infection, portal hypertension (cirrhosis of the liver), congenital heart disease Eisenmeger syndrome, acquired heart defects (mitral stenosis); associated with lung disease / hypoxia (chronic obstructive pulmonary disease), diseases that limit the movement of the chest (Bechterew's disease, kyphosis, kyphoscoliosis); in pulmonary embolism and chronic postthromboembolic pulmonary hypertension. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by pulmonary hypertension. Primary and secondary prevention. Forecast and efficiency.

Topic 9. Management of a patient with heart murmur.

The main diseases and conditions accompanied by systolic and / or diastolic murmurs in the heart: 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 stenosis, aortic valve insufficiency, tricuspid insufficiency: organic and relative), hypertrophic cardiomyopathy, "innocent" systolic age in individuals). Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by shortness of breath. Indications for surgical treatment, Primary and secondary prevention. Forecast and efficiency.

Topic 10. Management of a patient with chronic heart failure.

Right ventricular, left ventricular and biventricular heart failure. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management depending on the genesis, functional class and stage of heart failure. Drug and non-drug, including surgical, treatment, the impact on the prognosis of various treatments. Primary and secondary prevention. Forecast and efficiency.

TABLE OF CONTENTS SECTION 2
"MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN RHEUMATOLOGICAL CLINIC"

Specific goals

Students must be able to:

- Conduct interviews and physical examinations of patients with the main symptoms and syndromes in the rheumatology clinic.
- Preliminary diagnosis of major rheumatic diseases and identify their complications.
- Make a plan for examination of patients and justify the use of each non-invasive and invasive diagnostic method used in rheumatology.
- Evaluate the results of basic instrumental and laboratory diagnostic methods in a rheumatology clinic.

- Make a differential diagnosis of the main symptoms and syndromes in a rheumatology clinic.
- Justify and formulate the clinical diagnosis of major rheumatic diseases.
- Determine the prognosis of patients with major rheumatic diseases.
- Prescribe non-drug and drug treatment, including prognosis-modifying, to carry out non-drug and drug primary and secondary prophylaxis at the basic diseases in rheumatological clinic.
- Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination.

Topic 11. Management of a patient with back and limb pain.

The main diseases and conditions accompanied by pain in the extremities and back: seronegative spondyloarthropathy (ankylosing spondylitis, reactive arthritis, arthritis with enterocolitis), osteochondrosis of the spine, osteoporosis, dermatomyositis, vamyrositis, polymyositis, diarrhea, diarrhea, polymyositis, Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by pain in the extremities and back. Primary and secondary prevention. Forecast and efficiency.

Topic 12. Management of a patient with joint syndrome.

The main diseases and conditions accompanied by joint syndrome: rheumatoid arthritis, ankylosing spondylitis, reactive arthritis, gout, systemic lupus erythematosus, systemic scleroderma, dermatomyositis / polymyositis, nodular polyarteritis, acute rheumatic fever. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by joint syndrome. Primary and secondary prevention. Forecast and efficiency.

Topic 13. Management of a patient with purpura

The main diseases and conditions accompanied by purpura: hemorrhagic vasculitis, hypersensitive vasculitis, nodular polyarteritis, idiopathic thrombocytopenic purpura, disseminated intravascular coagulation syndrome. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by purpura. Primary and secondary prevention. Forecast and efficiency.

Topic 14. Management of a patient with fever.

The main diseases and conditions accompanied by prolonged fever: infectious endocarditis, systemic connective tissue diseases, nodular polyarteritis, rheumatoid arthritis, malignant neoplasms, including leukemia, lymphoma, myeloma, lymphogranulomatosis; sepsis, tuberculosis, Crohn's disease, AIDS. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by prolonged fever. Primary and secondary prevention. Forecast and efficiency.

Topic 15. Management of a patient with weight loss.

The main diseases and conditions accompanied by weight loss: cancer, systemic connective tissue diseases, in particular, systemic lupus erythematosus, dermatomyositis / polymyositis, systemic scleroderma; systemic vasculitis, including nodular polyarteritis; diseases of the digestive tract, lungs, cardiovascular system, alimentary and psychogenic weight loss, etc. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient

management. Non-drug and drug treatment of major diseases accompanied by weight loss. Primary and secondary prevention. Forecast and efficiency.

TABLE OF CONTENTS SECTION 3
"MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN THE GASTROENTEROLOGICAL CLINIC"

Specific goals

Students must be able to:

- Conduct interviews and physical examinations of patients with the main symptoms and syndromes in the gastroenterology clinic.
- Preliminary diagnosis of major gastrointestinal diseases and identify their complications.
- Make a plan for examination of patients and justify the use of each non-invasive and invasive diagnostic method used in gastroenterology.
- Evaluate the results of basic instrumental and laboratory diagnostic methods in the gastroenterology clinic.
- Make a differential diagnosis of the main symptoms and syndromes in the gastroenterology clinic.
- Justify and formulate the clinical diagnosis of major gastrointestinal diseases.
- Determine the prognosis of patients with major gastrointestinal diseases.
- Prescribe non-drug and drug treatment, conduct non-drug and drug primary and secondary prevention of major diseases in the gastroenterology clinic.
- Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination.

Topic 16. Management of a patient with dysphagia and heartburn.

The main diseases and conditions accompanied by dysphagia: esophagitis, including gastroesophageal reflux disease; esophageal cancer, diffuse esophageal spasm, achalasia of the cardia, esophageal diverticula, systemic scleroderma, dysphagia with central and peripheral nervous and muscular systems.

The main diseases and conditions accompanied by heartburn: gastroesophageal reflux disease, unexplored dyspepsia, chronic gastritis, peptic ulcer of the stomach and duodenum. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by dysphagia and heartburn. Primary and secondary prevention. Forecast and efficiency.

Topic 17. Management of a patient with dyspepsia.

Definition. The main reasons for development. Classification. Functional dyspepsia and its variants: epigastric pain syndrome and postprandial distress syndrome. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 18. Management of a patient with abdominal pain.

The main diseases and conditions accompanied by chronic 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, non-irritable bowel syndrome, disease frog". Differential-diagnostic value of clinical manifestations and data

of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by chronic abdominal pain. Indications for surgical treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 19. Management of a patient with diarrhea.

The main diseases and conditions that are accompanied by prolonged diarrhea: chronic atrophic gastritis, diseases of the operated stomach, Zollinger-Ellison syndrome, irritable bowel syndrome, Crohn's disease, syndrome of excessive bacterial growth in the small intestine, celiac disease, eating disorders. chronic pancreatitis, diabetic enteropathy, amyloidosis, acquired immunodeficiency syndrome. The role of intolerance to food components, enzymopathies and immune factors. Malabsorption and maldigestion syndromes. Secretory, exudative, dysmotor and functional diarrhea. Basic coprological syndromes. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by diarrhea. Primary and secondary prevention. Forecast and efficiency.

Topic 20. Management of a patient with constipation.

The main diseases and conditions accompanied by constipation: irritable bowel syndrome, bowel cancer, anorectal diseases, hypothyroidism, neurogenic and psychogenic disorders, eating disorders, situational and iatrogenic constipation. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by constipation. Primary and secondary prevention. Forecast and efficiency.

Topic 21. Management of a patient with jaundice.

Major diseases and conditions accompanied by jaundice: chronic hepatitis, cirrhosis and liver cancer, hemolytic anemia, gallstone disease, pancreatic cancer, vater nipple cancer, benign hyperbilirubinemia. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by jaundice. Primary and secondary prevention. Forecast and efficiency.

Topic 22. Management of a patient with hepatomegaly and hepatolienal syndrome.

The main diseases and conditions accompanied by hepatomegaly and hepatolienal syndrome: diseases of the parenchyma and vessels of the liver, including chronic hepatitis, cirrhosis and liver cancer, hepatic vein thrombosis; diseases of the blood and blood-forming organs, in particular, leukemia, lymphogranulomatosis, erythremia; right ventricular heart failure, including with constrictive pericarditis; accumulation diseases, in particular, hemachromatosis, etc. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by hepatomegaly and hepatolienal syndrome. Indications for surgical treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 23. Management of a patient with portal hypertension and ascites.

The main diseases and conditions that lead to the development of portal hypertension and ascites: cirrhosis and liver tumors, right ventricular heart failure, including in constrictive pericarditis, hepatic vein thrombosis, thrombosis of the portal vein or its branches and thrombosis, stenosis, obliteration of the inferior vena cava at or above the hepatic veins, etc. Differential-diagnostic value of clinical manifestations and data of additional laboratory and

instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by portal hypertension and ascites. Indications for endoscopic and surgical treatment (bypass surgery, liver transplantation). Primary and secondary prevention. Forecast and efficiency

TABLE OF CONTENTS SECTION 4
"MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN PULMONOLOGICAL AND ALLERGOLOGICAL CLINIC"

Specific goals

Students must be able to:

- Conduct interviews and physical examinations of patients with the main symptoms and syndromes in the pulmonology clinic.
- Preliminary diagnosis of major respiratory diseases and identify their complications.
- Make a plan for examination of patients and justify the use of each non-invasive and invasive method of diagnosis used in pulmonology.
- Evaluate the results of basic instrumental and laboratory diagnostic methods in the pulmonology clinic.
- Make a differential diagnosis of the main symptoms and syndromes in the pulmonology clinic.
- Justify and formulate the clinical diagnosis of major respiratory diseases.
- Determine the prognosis of patients with major respiratory diseases.
- Prescribe non-drug and drug treatment, conduct non-drug and drug primary and secondary prevention of major diseases in the pulmonology clinic.
- Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination.

Topic 24. Management of a patient with pulmonary infiltrate

The main diseases and conditions accompanied by pulmonary infiltrate: pneumonia, infiltrative pulmonary tuberculosis, eosinophilic pulmonary infiltrate, pulmonary infarction, lung cancer, benign lung tumors, pulmonary sarcoidosis, focal pneumosclerosis. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by pulmonary infiltrate. Primary and secondary prevention. Forecast and efficiency.

Topic 25. Management of a patient with a chronic cough.

The main diseases and conditions accompanied by cough: chronic obstructive pulmonary disease, bronchial asthma, pulmonary tuberculosis, bronchiectasis, malignant tumors of the lungs and bronchi, pneumoconiosis, left ventricular heart failure, gastroesophageal reflux disease and syndrome. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by cough. Primary and secondary prevention. Forecast and efficiency.

Topic 26. Management of a patient with bronchoobstructive syndrome.

The main diseases and conditions accompanied by bronchoobstructive syndrome: chronic obstructive pulmonary disease, bronchial asthma, tumors of the trachea, bronchi and mediastinum. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by broncho-obstructive syndrome. Primary and secondary prevention. Forecast and efficiency.

Topic 27. Management of a patient with cyanosis.

The main diseases and conditions accompanied by cyanosis: lung and heart diseases, including congenital heart defects in the state of Eisenmenger's syndrome, acquired heart defects (mitral stenosis), heart and respiratory failure and the formation of pathological hemoglobin. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by cyanosis. Primary and secondary prevention. Forecast and efficiency.

Topic 28. Management of a patient with hemoptysis.

The main diseases and conditions accompanied by hemoptysis: malignant tumors of the bronchi and lungs, pulmonary tuberculosis, pneumonia, bronchiectasis, lung abscess, mitral stenosis, pulmonary infarction and more. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by hemoptysis. Primary and secondary prevention. Forecast and efficiency.

Topic 29. Management of a patient with pleural effusion.

The main diseases and conditions accompanied by pleural effusion: pneumonia, pulmonary tuberculosis, malignant tumors of the lungs and pleura, heart failure, acute pancreatitis, liver cirrhosis, nephrotic syndrome, systemic connective tissue diseases, chest injuries. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by pleural effusion. Indications for pleural puncture, possible complications. Primary and secondary prevention. Forecast and efficiency.

BLOCK 2 EMERGENCY CONDITIONS IN THERAPY

TABLE OF CONTENTS SECTION 5
"MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN ENDOCRINOLOGICAL CLINIC"

Specific goals

Students must be able to:

- Conduct surveys and physical examinations of patients with major endocrinological syndromes.
- Justify the use of basic invasive and non-invasive diagnostic methods used in endocrinology, determine the indications and contraindications for their implementation, possible complications.
- Make a plan for examination of patients with major endocrine syndromes.
- Make a differential diagnosis, justify and formulate a diagnosis of major endocrine syndromes.
- Prescribe treatment, determine the prognosis, conduct primary and secondary prevention of major endocrine diseases.
- Diagnose and provide care in emergencies in endocrinology.
- Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination.

Topic 34. Management of a patient with uncompensated forms of diabetes mellitus (ketoacidosis).

Criteria for the diagnosis of diabetes mellitus and other categories of hyperglycemia (WHO, 1999). Indications and rules for glucose tolerance test. Diagnostic value of determination of

glycated hemoglobin, fructosamine, C-peptide, glucosuria, ketonuria. Criteria for compensation of metabolism, achievement of normoglycemia. Ketoacidotic conditions in diabetes mellitus. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment. The main methods of diabetes treatment, diet therapy, dosed exercise, hypoglycemic pharmacotherapy, teaching the patient self-control.Principles of treatment of pregnant women with diabetes. Features of urgent and planned surgical interventions in patients with diabetes mellitus. Insulin therapy regimens: traditional and intensified. Complications of insulin therapy: hypoglycemic conditions, insulin allergy, post-injection lipodystrophy, insulin resistance, chronic insulin overdose (Somogy syndrome), insulin edema.Definition of metabolic syndrome, classification, diagnostic criteria, urgency of the problem. Drawing up a survey plan, the role of instrumental and laboratory methods of examination. Tactics of patients depending on the level of glycemia, body mass index, blood pressure. Drug and non-drug treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 35. Management of a patient with chronic complications of diabetes.

Diabetic angiopathy and neuropathy. Classification. Diabetic nephropathy, stages of development, diagnosis, differential diagnosis, treatment and prevention. Diabetic retinopathy: stages of the process, diagnosis, prevention and treatment. Diabetic neuropathy, classification, diagnosis and treatment. Diabetic foot: classification, diagnosis, treatment.

Topic 36. Management of a patient with goiter syndrome.

Determination of the size of the thyroid gland. The concept of endemic non-toxic and nodular forms of goiter. Diseases accompanied by thyrotoxicosis. Clinical differences of nodular toxic goiter. Rationale for the diagnosis of thyrotoxicosis. Medical, surgical treatment of toxic goiter, use of 131-iodine for therapeutic purposes. Differential diagnosis of thyroiditis with acute and subacute clinical course. Chronic thyroiditis. Rationale for the diagnosis of autoimmune thyroiditis. Nodular forms of goiter. Monitoring of patients with thyroid nodules. Pathomorphological classification of thyroid tumors. Rationale for the diagnosis of thyroid cancer.

Topic 37. Management of a patient with hypertension in endocrinological practice.

Classification, criteria for diagnosis and differential diagnosis of secondary arterial hypertension of endocrine origin (in Conn's syndrome, pheochromocytoma, Itsenko-Cushing's syndrome, thyrotoxicosis, etc.). Drawing up a survey plan, the role of instrumental and laboratory methods of examination. Tactics of patient management, medical and non-medical treatment. Existing treatment standards. Primary and secondary prevention. Forecast and efficiency.

CONTENT MODULE 6
"MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN THE NEPHROLOGICAL CLINIC"

Specific goals.

Students must be able to:

- Conduct interviews and physical examinations of patients with the main symptoms and syndromes in the nephrology clinic.
- Preliminary diagnosis of major diseases of the urinary system and identify their complications.
- Make a plan for examination of patients and justify the use of each non-invasive and invasive diagnostic method used in nephrology.
- Evaluate the results of basic instrumental and laboratory diagnostic methods in the nephrology clinic.
- Make a differential diagnosis of the main symptoms and syndromes in a nephrology clinic.

- Justify and formulate the clinical diagnosis of major diseases of the urinary system.
- Determine the prognosis of patients with major diseases of the urinary system.
- Prescribe non-drug and drug treatment, conduct primary and secondary prevention of major diseases in the nephrology clinic.
- Catheterize the bladder with a soft catheter.
- Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination.

Topic 38. Management of a patient with urinary syndrome.

The main diseases and conditions accompanied by urinary syndrome: acute and chronic glomerulonephritis, tubulointerstitial kidney disease, pyelonephritis, cystitis, urethritis, urolithiasis, diabetic nephropathy, renal infarction, renal tuberculosis, hypernephritis. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by urinary syndrome. Primary and secondary prevention. Forecast and efficiency.

Topic 39. Management of a patient with nephrotic syndrome.

The main diseases and conditions accompanied by nephrotic syndrome: acute and chronic glomerulonephritis, renal amyloidosis, diabetic nephropathy, myeloma. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by nephrotic syndrome. Primary and secondary prevention. Forecast and efficiency.

Topic 40. Management of a patient with chronic kidney disease.

The concept and classification of chronic kidney disease. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Renal replacement therapy: hemodialysis, kidney transplantation. Indications and contraindications, possible complications. Primary and secondary prevention. Forecast and efficiency.

TABLE OF CONTENTS SECTION 7 "MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN THE HEMATOLOGICAL CLINIC"

Specific goals

Students must be able to:

- Conduct interviews and physical examinations of patients with the main symptoms and syndromes in the hematology clinic.
- Preliminary diagnosis of major diseases of the blood and blood-forming organs and identify their complications.
- Make a plan for examination of patients, determine the indications and contraindications for their conduct, and justify the use of each non-invasive and invasive diagnostic method used in hematology.
- Evaluate the results of basic instrumental and laboratory diagnostic methods in the hematology clinic.
- Make a differential diagnosis of the main symptoms and syndromes in the hematology clinic.

- Justify and formulate the clinical diagnosis of major diseases of the blood and blood-forming organs.
- Determine the prognosis of patients with major hematological diseases.
- Prescribe non-drug and drug treatment, carry out primary and secondary prevention of major diseases in the hematology clinic.
- Determine blood type, transfuse blood components and blood substitutes
- Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination.

Topic 30. Management of a patient with anemia.

Differential diagnosis in posthemorrhagic, iron deficiency, B12-deficient, aplastic, hemolytic anemia. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment. Indications, contraindications, methods and possible complications of transfusion of blood components and blood substitutes. Primary and secondary prevention. Forecast and efficiency.

Topic 31. Management of a patient with bleeding.

The main diseases and conditions accompanied by bleeding: hemophilia, idiopathic thrombocytopenic purpura, malignant diseases of the hematopoietic system, accompanied by thrombocytopenia. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by hemorrhagic syndrome. Primary and secondary prevention. Forecast and efficiency.

Topic 32. Management of a patient with lymphadenopathy.

The main diseases and conditions accompanied by lymphadenopathy: Hodgkin's and non-Hodgkin's malignant lymphomas, acute and chronic lymphoid and myeloid leukemias, infectious mononucleosis, reactive lymphadenitis, tuberculosis, sarcoidosis, metastatic disease, systemic lesions, systemic lesions, systemic lesions. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by lymphadenopathy. Primary and secondary prevention. Forecast and efficiency.

Topic 33. Management of a patient with leukocytosis and leukopenia.

The main diseases and conditions accompanied by leukocytosis: lymphomas, acute and chronic lymphoid and myeloid leukemias, infectious mononucleosis, reactive lymphadenitis, sarcoidosis, metastatic lesions, sepsis and leukopenia: systemic leukemia, intestinal anemia, B12-deficiency. Differential-diagnostic value of clinical manifestations and data of additional laboratory and instrumental research methods. Algorithm of differential diagnostics. Tactics of patient management. Non-drug and drug treatment of major diseases accompanied by leukocytosis. Primary and secondary prevention. Forecast and efficiency.

TABLE OF CONTENTS SECTION 8
"EMERGENCY CONDITIONS IN CARDIOREMATOMOLOGY"

Topic 35. Management of a patient with a complicated hypertensive crisis. Management of a patient with cardiac asthma and pulmonary edema.

The concept and classification of hypertensive crises. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

Topic 36. Management of a patient with acute coronary syndrome. Management of the patient with a myocardial infarction. Management of the patient with cardiogenic shock.

The concept and classification of acute coronary syndrome. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

Topic 37. Management of a patient with pulmonary embolism. Tactics of treatment for sudden cardiac death.

The concept and classification of pulmonary embolism. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

Topic 38. Management of a patient with paroxysmal arrhythmias and conduction.

The concept and classification of paroxysmal arrhythmias .. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

TABLE OF CONTENTS SECTION 9
"EMERGENCIES IN PULMONOLOGY AND ALLERGOLOGY"

Topic 39. Management of a patient with severe community-acquired and nosocomial pneumonia. Management of a patient with total pleural effusion.

The concept and classification of pneumonia. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

Topic 40. Management of a patient with asthmatic status.

The concept and classification of bronchial asthma. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

Topic 41. Management of a patient with anaphylactic shock and Quincke's edema.

The concept and classification of anaphylactic shock. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

TABLE OF CONTENTS SECTION 10
"EMERGENCY STATES IN GASTROENTEROLOGY AND NEPHROLOGY"

Topic 42. Management of a patient with acute liver failure.

The concept and classification of liver failure. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

Topic 43. Management of a patient with acute renal failure.

The concept and classification of acute renal failure. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

Topic 44. Management of a patient with acute abdominal pain. Management of a patient with gastrointestinal bleeding.

The concept and classification of gastrointestinal bleeding. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

Topic 45. Emergencies in the clinic of military therapy.

The concept and classification of emergencies in the clinic of military therapy. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

TABLE OF CONTENTS SECTION 11
"EMERGENCIES IN ENDOCRINOLOGY AND HEMATOLOGY"

Topic 46. Management of a patient with hypoglycemic coma. Management of a patient with hyperglycemic (ketoacidemic) coma.

The concept and classification of coma in diabetes mellitus in the clinic. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

Topic 47. Management of a patient with thyrotoxic crisis. Management of a patient with acute adrenal insufficiency

The concept and classification of crises in diseases of the thyroid gland. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

Topic 48. Features of management of seriously ill, incurable patients. Methods of assessing the patient's condition. Treatment and care planning. Psychological, spiritual and social issues of palliative care for incurable patients and their relatives.

The concept and classification of incrabel states. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Diagnostic value of laboratory and instrumental research methods. Tactics of patient management, differentiated non-drug and drug treatment at different stages. Emergency aid. Primary and secondary prevention. Forecast and efficiency.

STRUCTURE OF THE COURSE
"INTERNAL MEDICINE»

№ in order	Topic	Lectures	Seminars	Practice	Individual work	
					IWS	Individual work
BLOCK 1. MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN THE THERAPEUTIC CLINIC. **Content section 1: Management of patients with the main symptoms and syndromes in the cardiac clinic**						
1	Management of a patient with hypertension			12	5	• Report of the abstract in a practical lesson • Report at clinical conferences of departments • Report of the History of the disease in a practical lesson • Writing abstracts, articles
2	Management of a patient with cardialgia			6	3	
3	Management of a patient with cardiac arrhythmia			6	3	
4	Management of a patient with impaired conduction			6	3	
5	Management of a patient with stable angina.			6	3	
6	Management of a patient with unstable angina.			6		
7	Management of a patient with shortness of breath			6		
8	Management of a patient with cardiomegaly			6		
9	Management of a patient with heart failure			12		
10	Management of a patient with heart murmurs			6		
	Independent / individual work				**17**	**1**
	Total hours - 90			**72**	**18**	

	ECTS credits - 1.75					
Content section 2: Management of patients with the main symptoms and syndromes in the rheumatology clinic						
11	Management of a patient with pain in the extremities and back			6	3	• Report of the abstract in a practical lesson • Report at clinical conferences of departments • Report of the History of the disease in a practical lesson • Writing abstracts, articles
12	Management of a patient with joint syndrome			8	3	
	Independent / individual work				**6**	**1**
	Total hours - 21			**14**	**7**	
	ECTS credits - 1.75					
Semantic section 3. Management of patients with the main symptoms and syndromes in the gastroenterological clinic						
13	Management of a patient with hemorrhagic syndrome			2	6	• Report of the abstract in a practical lesson • Report at clinical conferences of departments • Report of the History of the disease in a practical lesson • Writing abstracts, articles
14	Management of a patient with chronic diarrheal syndrome			2	6	
15	Management of a patient with gastric dyspepsia			2	6	
16	Management of a patient with jaundice			2	3	
17	Management of a patient with ascites, with portal hypertension			2	3	
18	Management of a patient with			6	3	

	hepatomegaly and hepatolienal syndrome					
	Independent / individual work				**27**	**1**
	Total hours - 44			**16**	**28**	
	ECTS credits - 1.75					
Contents Section 4: Management of patients with the main symptoms and syndromes in the pool monologue and allergy clinic						
19	Management of a patient with bronchoobstructive syndrome			2	3	• Report of the abstract in a practical lesson • Report at clinical conferences of departments • Report of the History of the disease in a practical lesson • Writing abstracts, articles
20	Management of a patient with infiltrative eclipse in the lungs			6	5	
21	Management of a patient with fever of uncertain genesis. Lesions of organs and systems in HIV infection			6	6	
22	Management of a patient with hemoptysis. Management of a patient with respiratory failure			6	6	
23	Management of a patient with community-acquired pneumonia. Management of a patient with nosocomial pneumonia			8	6	
	Independent / individual work				**26**	**1**
	Total hours - 55			**28**	**27**	
	ECTS credits - 1.75					
	TOTAL BLOCK 1, hours - 210 ECTS CREDITS - 7.0			**130**	**80**	
BLOCK 2. EMERGENCY CONDITIONS IN THERAPY						
Content section 5: Management of patients with the main symptoms and syndromes in the endocrinology clinic						
24	Management of a patient with chronic complications of diabetes mellitus			6	3	• Report of the abstract in a practical lesson • Report at clinical conferences of departments • Report of
25	Management of a patient with goiter syndrome			6	3	
26	Management of a patient with metabolic syndrome			6	3	

						the History of the disease in a practical lesson • Writing abstracts, articles
	Independent / individual work				**9**	**1**
	Total hours - 28			**18**	**10**	
	ECTS credits - 1.07					
Content section 6. Management of patients with the main symptoms and syndromes in the nephrology clinic						
27	Management of a patient with urinary syndrome			6	3	• Report of the abstract in a practical lesson • Report at clinical conferences of departments • Report of the History of the disease in a practical lesson • Writing abstracts, articles
28	Management of a patient with edema syndrome			6	3	
29	Management of a patient with chronic renal failure			6	4	
30	Management of a patient with nephrotic syndrome			6	3	
	Independent / individual work				**13**	**1**
	Total hours - 38			**24**	**14**	
	ECTS credits - 1.07					
Contents Section 7: Management of patients with the main symptoms and syndromes in the hematology clinic						
31	Management of a patient with anemia			12	3	• Report of the abstract in a practical lesson • Report at clinical conferences of departments
32	Management of a patient with leukemoid reaction and leukemia			6	3	
33	Management of a patient with purpura			6	3	
34	Management of a patient with lymphadenopathy			6	3	

						• Report of the History of the disease in a practical lesson • Writing abstracts, articles
	Independent / individual work				**12**	**1**
	Total hours - 43			**30**	**13**	
	ECTS credits - 1.07					
Semantic section 8: "Emergencies in cardiorheumatology»						
35	Management of a patient with a complicated hypertensive crisis. Management of a patient with cardiac asthma and pulmonary edema.			6	3	• Report of the abstract in a practical lesson • Report at clinical conferences of departments • Report on the history of the disease in practice • Writing abstracts, articles
36	Management of a patient with acute coronary syndrome. Management of the patient with a myocardial infarction. Management of the patient with cardiogenic shock			6	4	
37	Management of a patient with pulmonary embolism. Tactics of treatment for sudden cardiac death.			6	3	
38	Management of a patient with paroxysmal arrhythmias and conduction.			6	3	
	Independent / individual work				**13**	**1**
	Total hours - 38			**24**	**14**	
	ECTS credits - 1.07					
Semantic section 9: "Emergencies in pulmonology and allergology»						
39	Management of a patient with severe community-acquired and nosocomial pneumonia. Management of a patient with total pleural effusion			6	3	• Report of the abstract in a practical lesson • Report at clinical conferences of departments • Report on
40	Management of a patient with asthmatic status.			4	2	
41	Management of a patient with anaphylactic shock and Quincke's edema.			2	3	

						the history of the disease in practice • Writing abstracts, articles
	Independent / individual work				**8**	**1**
	Total hours - 21			**12**	**9**	
	ECTS credits - 1.07					
Contents section 10. "Emergencies in gastroenterology and nephrology"						
42	Management of a patient with acute liver failure.			4	3	• Report of the abstract in a practical lesson • Report at clinical conferences of departments • Report on the history of the disease in practice • Writing abstracts, articles
43	Management of a patient with acute renal failure.			4	3	
44	Management of a patient with acute abdominal pain. Management of a patient with gastrointestinal bleeding			4	4	
45	Emergencies in the military therapy clinic.			6	3	
	Independent / individual work				**13**	**1**
	Total hours -34			**20**	**14**	
	Credits ECTS – 1,07					
Content section 11: "Emergencies in endocrinology and hematology"						
46	Management of a patient with hypoglycemic coma. Management of a patient with hyperglycemic (ketoacidemic) coma.			6	4	• Report of the abstract in a practical lesson • Report at clinical conferences of departments • Report on the
47	Management of a patient with a thyrotoxic crisis. Management of a patient with acute adrenal insufficiency			2	3	
48	Features of management of seriously ill, incurable patients. Methods of assessing the patient's condition. Treatment and care planning. Psychological, spiritual and social issues of palliative care for incurable patients and their relatives.			2	3	

	Monitoring the mastery of practical skills of objective examination of the patient			2		history of the disease in practice • Writing theses and articles
	Independent / individual work				**10**	**1**
	Hours in general – 23			**12**	**11**	
	Credits ECTS – 1,07					
	TOGETHER BLOCK 2 – 225 **Credit block 2 - 7,5**			**140**	**85**	
	Together with the discipline **Hours – 435** **Credits ECTS – 14,5**			**270**	**165**	

4. The content of the discipline

4.2. THEMATIC PLAN OF PRACTICAL CLASSES

BLOCK 1. MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN THE THERAPEUTIC CLINIC.

Contents of section 1. "Management of patients with the main symptoms and syndromes in the cardiac clinic"

№ i\o	Theme	Number of hours
1	Management of a patient with hypertension	12
2	Management of a patient with chronic (recurrent) chest pain	6
3	Management of a patient with acute chest pain	6
4	Management of a patient with cardiac arrhythmias	6
5	Management of a patient with impaired cardiac conduction	6
6	Management of a patient with shortness of breath	6
7	Management of a patient with edema syndrome	6
8	Management of a patient with pulmonary hypertension	6
9	Management of a patient with heart murmur	12
10	Management of a patient with chronic heart failure	6
	Together	**72 hours**

Contents of section 2. "Management of patients with the main symptoms and syndromes in the rheumatology clinic"

№ i\o	Theme	Number of hours
11	Management of a patient with back and limb pain	6
12	Management of a patient with joint syndrome	8
	Together	**14 hours**

Contents of section 3. "Management of patients with the main symptoms and syndromes in the gastroenterological clinic"

№ i\o	Theme	Number of hours
13	Management of a patient with dysphagia and heartburn	2
14	Management of a patient with dyspepsia	2
15	Management of a patient with abdominal pain	2
16	Management of a patient with diarrhea	2
17	Management of a patient with constipation	2
18	Management of a patient with jaundice	2
19	Management of a patient with hepatomegaly and hepatolienal syndrome	2
20	Management of a patient with portal hypertension and ascites	2
	Together	**16 hours**

Contents of section 4. "Management of patients with symptoms and syndromes in the pulmonology and allergology clinic"

№ i\o	Theme	Number of hours
21	Management of a patient with pulmonary infiltrate	6
22	Management of a patient with a chronic cough	6
23	Management of a patient with bronchoobstructive syndrome	4
24	Management of a patient with cyanosis	4
25	Management of a patient with hemoptysis	4
26	Management of a patient with pleural effusion	4
	Together	**28 hours**

TOGETHER OF PRACTICAL LESSONS BLOCK 1: 130 hours

BLOCK 2. EMERGENCY CONDITIONS IN THERAPY

Contents of section 5. "Management of patients with the main symptoms and syndromes in the endocrinology clinic"

№ i\o	Theme	Number of hours
27	Management of a patient with chronic complications of diabetes mellitus	6
28	Management of a patient with goiter syndrome	6
29	Management of a patient with metabolic syndrome	6
	Together	**18 hours**

Contents of section 6. "Management of patients with the main symptoms and syndromes in the nephrology clinic"

№ i\o	Theme	Number of hours
30	Management of a patient with urinary syndrome	8
31	Management of a patient with nephrotic syndrome	8

32	Management of a patient with chronic kidney disease	8
	Together	**24 hours**

Contents of section 7. "Management of patients with the main symptoms and syndromes in the hematology clinic"

№ i\o	**Theme**	**Number of hours**
33	Management of a patient with anemia	12
34	Management of a patient with purpura	6
35	Management of a patient with lymphadenopathy	6
36	Management of a patient with leukocytosis and leukopenia	6
	Together	**30 hours**

Content sections 8-11. "Emergencies"

№	**Theme**	**Quantity**
	Contents section 8 *Emergencies in cardiorheumatology*	
38	Management of a patient with hypertension	6
39	Management of a patient with acute chest pain	6
40	Management of a patient with pulmonary embolism	6
41	Management of a patient with cardiac arrhythmias	6
	Together	**24 hours**
	Contents section 9 *Emergencies in pulmonology and allergology*	
42.	Management of a patient with anaphylactic shock, Quincke's edema	2
43	Management of a patient with pneumonia and pleural effusion	6
44	Management of a patient with an attack of bronchial asthma	4
	Together	**12 hours**
	Contents section 10 *Emergencies in gastroenterology and nephrology*	
45	Management of a patient with constipation	2
46	Management of a patient with jaundice	4
47	Management of a patient with hepatomegaly and hepatolienal syndrome.	4
48.	Management of a patient with portal hypertension and ascites	4
49	Management of a patient with urinary syndrome	2
50.	Management of a patient with renal colic	4
	Together	**20 hours**
	Contents section 11 *Emergencies in endocrinology and hematology*	
51.	Emergency care in case of thyrotoxic crisis	4
52.	Emergency care for hypoglycemic coma	4
53	Emergency care for incrabious patients	4
	Together	**12 hours**
	TOTAL BLOCK 2	**140**
	TOGETHER FROM THE DISCIPLINE	**270 hours**

4.2. THEMATIC PLAN OF INDEPENDENT WORK OF STUDENTS

№ i\o	Theme	Number of hours
BLOCK 1. MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN THE THERAPEUTIC CLINIC.		
1	Preparation for practical classes - theoretical training and development of practical skills	60
2	Preparing and writing a medical history	10
3	Preparation for the final modular control	3
4	Individual work: • Report of the abstract in a practical lesson. • Report at clinical conferences of departments. • Report the history of the disease in a practical lesson • Writing theses and articles	7
Together with Block 1		**80 hours**

№ i\o	Theme	Number of hours
BLOCK 2. EMERGENCY CONDITIONS IN THERAPY		
1	Preparation for practical classes - theoretical training and development of practical skills	65
2	Preparing and writing a medical history	10
3	Preparation for the final modular control	3
4	Individual work: • Report of the abstract in a practical lesson. • Report at clinical conferences of departments. • Report the history of the disease in a practical lesson • Writing theses and articles	7
Together with Block 2		**85 hours**

Together with the discipline (hours of independent work) - 165 hours.

BLOCK 1. MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN THE THERAPEUTIC CLINIC.

1. Management of a patient with hypertension: algorithms and standards of diagnosis and treatment.
2. Management of a patient with chest pain: algorithms and standards of diagnosis and treatment.
3. Management of a patient with cardiac arrhythmias: algorithms and standards of diagnosis and treatment.
4. Management of a patient with cardiac conduction disorders: algorithms and standards of diagnosis and treatment.
5. Management of a patient with shortness of breath: algorithms and standards of diagnosis and treatment.
6. Management of a patient with edema syndrome: algorithms and standards of diagnosis and treatment.

7. Management of a patient with pulmonary hypertension: algorithms and standards of diagnosis and treatment.
8. Management of a patient with heart murmur: algorithms and standards of diagnosis and treatment.
9. Management of a patient with chronic heart failure: algorithms and standards of diagnosis and treatment.
10. Management of a patient with back and limb pain: algorithms and standards of diagnosis and treatment.
11. Management of a patient with joint syndrome: algorithms and standards of diagnosis and treatment.
12. Management of a patient with purpura: algorithms and standards of diagnosis and treatment.
13. Management of a patient with fever: algorithms and standards of diagnosis and treatment.
14. Management of a patient with weight loss: algorithms and standards of diagnosis and treatment.
15. Management of a patient with dysphagia and heartburn: algorithms and standards of diagnosis and treatment.
16. Management of a patient with dyspepsia: algorithms and standards of diagnosis and treatment.
17. Management of a patient with abdominal pain: algorithms and standards of diagnosis and treatment.
18. Management of a patient with diarrhea: algorithms and standards of diagnosis and treatment.
19. Management of a patient with constipation: algorithms and standards of diagnosis and treatment.
20. Management of a patient with jaundice: algorithms and standards of diagnosis and treatment.
21. Management of a patient with hepatomegaly and hepatolienal syndrome: algorithms and standards of diagnosis and treatment.
22. Management of a patient with portal hypertension and ascites: algorithms and standards of diagnosis and treatment.
23. Management of a patient with pulmonary infiltrate: algorithms and standards of diagnosis and treatment.
24. Management of a patient with chronic cough: algorithms and standards of diagnosis and treatment.
25. Management of a patient with bronchoobstructive syndrome: algorithms and standards of diagnosis and treatment.
26. Management of a patient with cyanosis: algorithms and standards of diagnosis and treatment.
27. Management of a patient with hemoptysis: algorithms and standards of diagnosis and treatment.
28. Management of a patient with pleural effusion: algorithms and standards of diagnosis and treatment.
29. Management of a patient with anemia: algorithms and standards and treatment.
30. Management of a patient with bleeding: algorithms and standards of diagnosis and treatment.
31. Management of a patient with lymphadenopathy and leukocytosis: algorithms and standards of diagnosis and treatment.
32. Management of a patient with leukocytosis: algorithms and standards of diagnosis and treatment.
33. Management of a patient with uncompensated forms of diabetes mellitus: algorithms and protocols for diagnosis and treatment.

34. Management of a patient with chronic complications of diabetes mellitus: algorithms and protocols for diagnosis and treatment of diabetic neuropathy, nephropathy, retinopathy, diabetic foot syndrome.
35. Management of a patient with goiter syndrome: algorithms for diagnosis and treatment of iodine deficiency diseases, hypothyroidism, thyrotoxicosis, thyroid cancer.
36. Management of a patient with arterial hypertension syndrome: algorithm for diagnosis and treatment of Itsenko-Cushing's syndrome and disease, diabetes mellitus, acromegaly.
37. Management of a patient with urinary syndrome: algorithms and standards of diagnosis and treatment.
38. Management of a patient with nephrotic syndrome: algorithms and standards of diagnosis and treatment.
39. Management of a patient with chronic kidney disease: algorithms and standards of diagnosis and treatment.

BLOCK 2. EMERGENCY CONDITIONS IN THERAPY

1. Emergency care and tactics for circulatory and respiratory arrest
2. Emergency care for hypertensive crisis
3. Emergency care for patients with acute coronary syndrome
4. Emergency care for patients with pulmonary embolism
5. Emergency care for patients with acute heart failure
6. Emergency care for patients with shock
7. Emergency care for patients with paroxysmal heart rhythm disorders
8. Emergency care for patients with acute respiratory failure
9. Emergency care for patients with melena and hematemesis
10. Emergency care in Addison's crisis
11. Emergency care for hypoglycemic coma
12. Emergency care for acute respiratory failure
13. Emergency care for acute hepatic encephalopathy
14. Emergency care for diabetic ketoacidotic coma
15. Emergency care for biliary colic
16. Emergency care for severe exacerbation of bronchial asthma
17. Emergency care in case of thyrotoxic crisis
18. Emergency care for esophageal and gastrointestinal bleeding

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

The list of practical skills which the student should master at studying of the 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 which the student should master at studying of the block №2:

1. Conduct a physical examination of a patient with mitral heart disease. Identify the leading symptoms and syndromes.
2. Conduct a physical examination of a patient with aortic heart disease. Identify the leading symptoms and syndromes.
3. Conduct a physical examination of a patient with hypertension. Identify the leading symptoms and syndromes.
4. To interrogate a patient with coronary heart disease (stable angina pectoris), to detail the pain syndrome, to determine the functional class of the patient.
5. Conduct a general examination and physical examination of a patient with acute myocardial infarction. Identify the main symptoms and syndromes.
6. Evaluate the ECG of a patient with acute myocardial infarction, determine the nature and location of heart muscle damage.
7. Conduct a physical examination of a patient with heart failure. Identify the main symptoms and syndromes, establish the functional class of the patient.
8. Interrogate and examine a patient with obstructive pulmonary disease. Identify the main symptoms and syndromes, taking into account the data of spirography to establish the stage of the disease.
9. Palpation, chest percussion and lung auscultation in a patient with obstructive pulmonary disease. Identify the main symptoms and syndromes.
10. Conduct an interrogation and physical examination of a patient with pneumonia. Identify the main symptoms and syndromes.
11. To interrogate and physically examine a patient with pleurisy. Determine the nature of pleurisy, the main symptoms and syndromes.
12. Conduct questioning, examination and palpation of the abdomen in a patient with chronic gastritis. Identify the leading syndromes.
13. Analyze the results of intragastric pH-metry in a patient with chronic gastritis. Assess the acid-forming function of the stomach.
14. Conduct questioning, examination and palpation of the abdomen in a patient with peptic ulcer of the stomach / duodenum. Identify the main syndromes, recognize the possible location of the ulcer.

15. Conduct questioning, examination and palpation of the abdomen in a patient with chronic cholecystitis. Check the main symptoms characteristic of gallbladder damage. Identify the main syndromes.
16. Conduct questioning, examination and palpation of the abdomen in a patient with chronic cholangitis. Identify the main syndromes.
17. Evaluate the data of multi-moment duodenal sounding of a patient with biliary tract disease. Identify the main symptoms and location of the lesion.
18. Examine and examine a patient with hepatitis (or liver cirrhosis). Identify the main symptoms and syndromes.
19. Conduct a physical examination of a patient with hepatitis (or cirrhosis of the liver). Identify the main syndromes based on biochemical blood tests and urine tests.
20. Conduct a physical examination of a patient with kidney disease (pyelonephritis or glomerulonephritis). Identify the main syndromes.
21. To analyze the general clinical analysis of urine of a patient with kidney disease, urine analysis according to the methods of Zymnytsky and Nechyporenko. Identify the main symptoms and syndromes. To draw a conclusion about the nature of kidney damage.
22. Conduct a physical examination of a patient with anemia. Identify the main symptoms and syndromes, taking into account the general blood test to determine the nature of anemia.
23. To conduct an interrogation and general examination of a patient with diabetes, to examine the pulse in the vessels of the upper and lower extremities, to measure blood pressure. Identify the main symptoms and syndromes.
24. 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 layer, palpation of lymph nodes, thyroid and mammary glands), examine the condition of the musculoskeletal system, joints;
    - Examine the condition of the respiratory organs (examination of the chest, palpation of the chest, percussion and auscultation of the lungs);
    - 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 studies (List 2)
- Carry out differential diagnosis of diseases (List 1).
- Make a clinical diagnosis of the disease (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)

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 hyperaldosterotonicosis, aperaldosterotoniconism,
3. ASCITIS (cirrhosis and liver tumors, right ventricular heart failure, including constrictive pericarditis, hepatic vein thrombosis, portal vein thrombosis 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, stenosis of the mouth of the aorta, hypertrophic cardiomyopathy, mitral valve prolapse, coronary arthritis, myocarditis, acute pericarditis, aortic dissection, aortic dissection, pleurisy, 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, gallbladder and sphincter dyskinesia oddi, gallstone disease, pancreatitis, chronic gastritis, peptic ulcer of the stomach and duodenum, irritable bowel syndrome, celiac disease, celiac disease and other enteropathies)).
6. LIMBS AND BACK PAIN (ankylosing spondylitis, osteoarthritis, osteochondrosis, osteoporosis, dermatomyositis / polymyositis, neuropathy, particularly vasculitis and diabetes).
7. BRONCHOBSTRUCTIVE SYNDROME (chronic obstructive pulmonary disease, bronchial asthma, tumors of the trachea, bronchi and mediastinum).
8. EXTRACTION IN 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 or accompanied).
10. HEPATOMEGALYA AND HEPATOLIENAL SYNDROME (acute and chronic hepatitis, cirrhosis and liver cancer, hepatic vein thrombosis, leukemia, lymphogranulomatosis, erythremia, right ventricular failure, in particular in constrictive pericarditis).
11. DYSPEPSY (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. DYPHAGIA (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 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 thromboembolism 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, infarction 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).
21. FEVER (rheumatoid arthritis, infectious endocarditis, malignant neoplasms, including leukemia, lymphoma, myeloma, lymphogranulomatosis, sepsis, tuberculosis, systemic connective tissue diseases, nodular polyarteritis, purulent chorocyngitis, ablansitis, ablansitis, ablansitis, ablangitis, abnasitis).
22. SWELLING SYNDROME (venous edema: chronic venous insufficiency, venous outflow disorders, deep vein thrombophlebitis; lymphatic edema: inflammatory, obstructive; fatty, orthostatic and idiopathic; in musculoskeletal system nephritis; 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. FAILURE (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 prosthetic valve, 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 , 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, hemorrhoids).
30. JOINT SYNDROME (rheumatoid arthritis, osteoarthritis, ankylosing spondylitis, reactive arthritis, gout, systemic lupus erythematosus, systemic scleroderma, acute rheumatic fever).
31. WEIGHT LOSS (cancer, 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. DYPHUS AND LOCAL CYANOSIS (lung and heart involvement, including congenital heart defects in eisenmenger syndrome and acquired heart defects - mitral stenosis, tricuspid valve insufficiency, heart and respiratory failure and in the formation of pathological hemo.

34. GASTROINTESTINAL BLEEDING (varicose veins of the esophagus, gastric erosions, 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 arterial duct, aortic coarctation, acquired heart defects: mitral stenosis, mitral valve insufficiency (organic and relative), mitral valve prolapse, aortic valve prolapse, steno , hypertrophic cardiomyopathy, tricuspid valve insufficiency (organic and relative), innocent systolic murmur in young people).

List 2 (disease)

Diseases of the cardiovascular system

1. Essential hypertension (hypertension).
1. 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;
1. Neurocirculatory dystonia.
2. Atherosclerosis.
3. Chronic forms of coronary heart disease.
4. Acute coronary syndrome (unstable angina, acute myocardial infarction).
5. Pericarditis.
6. Pulmonary heart.
7. Acquired heart defects: mitral, aortic and tricuspid valves, combined mitral and aortic defects.
8. Congenital heart defects: atrial, interventricular septal defect, open ductus arteriosus, aortic coarctation.
9. Infectious endocarditis.
10. Myocarditis and cardiomyopathy.
11. Pulmonary artery thromboembolism.
12. Cardiac arrhythmias.
13. Impaired conduction of the heart.
14. 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. Nonspecific 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. Adrenocorticotropic 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, T4, T3, antibodies to thyroperoxidase (ATPO), antibodies to TSH receptors, antibodies to thyroglobulin
33. Fecal elastase-1
34. Respiratory tests with 13C-urea, 13C-triglycerides, 13C-starch, 13C-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. α and β-blockers
3. Expectorants
4. Hemostatics
5. Proton pump inhibitors
6. H2-histamine blockers
7. Oral hypoglycemic agents and preparations of insulin, thyroxine, imidazole derivatives
8. Iron supplements
9. Cholinolytics

«0» credit card option

Petro Mohyla Black Sea National University
Educational qualification level - master
Field of knowledge: 22 Health care
specialty 222 Medicine

Educational discipline - **INTERNAL MEDICINE**

Option № 0

1. Management of a patient with cardiac arrhythmias: algorithms and standards of diagnosis and treatment. - maximum number of points - 20.

2. Renal colic. Etiology, pathogenesis, clinical picture. Emergency care - maximum number of points - 20.
3. Practical skill: algorithm of registration and analysis of an ECG. - maximum number of points - 20.
4. Situational task: A 50-year-old patient complains of severe weakness, dizziness, spots on the skin. A month ago I had a sore throat and was treated with antibiotics on my own. Objectively: the general condition is severe, the skin and mucous membranes are pale. On the skin of the face and torso spots of different sizes, blue and brown. On palpation, the abdomen is painless, the liver +1.5 cm protrudes from the edge of the right costal arch. General blood test: EP - 1.2x1012 / l, HB - 50 g / l, CP 0.70, platelets - 2x109 / l, anisopoikilocytosis. ESR - 55 mm / year. Preliminary diagnosis? With what diseases it is necessary to carry out differential diagnosis? What is the treatment for this disease? - maximum number of points - 20.

Approved at the meeting of the Department of Therapeutic and Surgical Disciplines, protocol № ___ from «__» _____ 2020 year.

Head of Department **Professor Zak M.Y.**

Examiner **Professor Zak M.Y.**

An example of the final control work on the unit 1

Solving tasks Step -2

1. The patient suddenly developed acute low back pain after lifting a heavy bag. Movements in the spine are limited. There is no Achilles' reflex on the left, there is anesthesia for pain sensitivity on the outer surface of the left leg. What disease do you suspect?
A Lumbosacral radiculitis
B Lumbago
C Lumbalgia
D Femoral nerve neuritis
E Spinal arachnoiditis

2. In a patient with severe meningeal syndrome, petechial skin rash, chills, body temperature 39 (C, inflammatory changes in peripheral blood and
neutrophilic pleocytosis in the cerebrospinal fluid was diagnosed with purulent meningitis. Which of the existing syndromes in a patient is crucial for the diagnosis of meningitis?
A Neutrophilic pleocytosis
B Petechial skin rash
C Meningeal syndrome
D Rising body temperature
E Inflammatory changes in the blood

3. A 60-year-old patient had severe pain in his right arm for 2 days. On day 3, blisters appeared in the form of a chain on the skin of the shoulder, forearm and hand. Sensitivity in the area of the rash is reduced. What disease can be diagnosed?
A Herpetic ganglionitis
B Dermatitis
C Cervical and thoracic radiculitis
D Psoriasis
E Allergies

4. The patient 70 years after hypothermia developed severe pain in the left half of the head in the forehead and left eye. After 3 days, on the background of fever to 37.6 (C appeared blisters on the forehead on the left and left upper eyelid. What disease can be diagnosed?
A Herpetic ganglionitis
B Trigeminal neuralgia
C Cold allergy
D Allergic Dermatitis
E Trigeminal neuritis

5. The patient, on the background of burning girdle pain in the right half of the chest, appeared on the skin blistering rash in the form of a chain in the middle chest on the right. What disease should you think about?
A Herpetic thoracic ganglionitis
B Thoracic sciatica
C Vertebrogenic thoracalgia
D Intercostal neuralgia
E Myalgia

6. A patient who suffered an injury with a fracture of the clavicle developed flaccid atrophic paralysis of the right arm with a violation of all types of sensitivity in it. What disease should you think about?
A Plexitis of the humeral plexus
B Cervical and thoracic radiculitis
C Cubital canal syndrome
D Cervicothoracalgia
E Polyneuritis

7. A patient with Morgan-Edem-Stokes syndrome lost consciousness while climbing stairs. The skin is pale, the pupils are wide, clonic - tonic convulsions, the chest is motionless. Diagnosis:
A Clinical death
B Social death
C Preagony
D Agony
E Biological death

8. The young woman lost 8 kg of weight in 3 months, complains of palpitations, thickening of the neck, feeling of "lump" when swallowing, irritability, trembling fingers, protruding eyes, low-grade fever. The most likely preliminary diagnosis?
A Thyrotoxicosis
B Hysteria.
C Brain tumor.
D Chroniosepsis.
E Rheumatism.

A 9.25-year-old woman had an abortion six months ago. complains of loss of appetite, weakness, arthralgia, two weeks later appeared dark urine, and jaundice, against which the general condition continues to deteriorate. Suspected viral hepatitis Which of the markers of viral hepatitis is more likely to be positive in a patient?
A Anti-HBc IgM.
B Anti-HEV IgM.
C Anti-CMV IgM.

D Anti-HBs
E Anti-HAV IgM

10. A 37-year-old patient, 2 days after the incision of the heifer, had a spot on his arm, which in a day turned into a pustule with a black bottom, painless to the touch, with a crown of daughter vesicles on the periphery. Painless swelling on the arm and shoulder. The body temperature rose to 39. Pulse-100, AT-95/60, BH-30 per minute. Which diagnosis is most likely?
A Anthrax
B Plague
C Tularemia
D Brucellosis
E Herpes zoster

And so 30 tasks with the subsequent analysis of typical errors.

An example of the final control work on the unit 2

Solving tasks Step -2

1. The patient is 82 years old, was admitted to the intensive care unit with complaints of acute chest pain, shortness of breath, weakness. At X-ray inspection of bodies of a thoracic cavity the cross size of a heart shadow is increased, the form of a shadow is triangular with the rounded cardiodiaphragmatic corners. Heart contractions of small amplitude, arrhythmic. The detected radiological signs most likely correspond to:
A Exudative pericarditis
B Articular stenosis
C Triad Fallot
D Dilated cardiomyopathy
E Myocarditis

2. A 52-year-old patient complains of difficulty in passing food. I first noticed dysphagic phenomena 6 months ago. They have intensified in the last two months. At the moment of a delay in a gullet of dense food there are pains behind a breast. Examination of the changes in the internal organs did not reveal. In the blood test: leukocytosis 11.109 without changes in the formula, ESR 57mm / h. There are traces of protein in the urine. During the X-ray examination of the esophagus in the phase of "tight filling" is determined by the narrowing of the lumen of the esophagus in the middle third for 6 cm on the anterior wall is a filling defect with uneven contours, the posterior wall at this level is uneven. The upper third of the chest is slightly enlarged, has clear contours. The lower third of the esophagus is not changed. Clinical and radiological diagnosis?
A Esophageal cancer
B Varicose veins of the esophagus
C Cicatricial narrowing of the esophagus
D Achalasia of the esophagus
E Spasm of the esophagus

3. A 27-year-old woman complains of shortness of breath, heart pain, palpitations, cough. Heart tones are arrhythmic, 1 tone at the top is clapping. At X-ray inspection the pulmonary drawing is strengthened at the expense of venous stagnation. The roots of the lungs are dilated, unstructured. The medial shadow is enlarged, the arch of the pulmonary artery protrudes along the left contour. In the first oblique position, the retrocardiac space is narrowed by an enlarged left atrium, which displaces the esophagus back in an arc of small radius. In the second oblique

position there is an increase in the arc of the right ventricle. The aorta is not changed. The most likely conclusion?
A Mitral stenosis
B Aortic valve insufficiency
C Cardiomyopathy
D Aortic aneurysm
E Fallo's tetrad

4. A 17-year-old patient at the draft board complained of tinnitus, which is amplified during exercise. Blood pressure 150/30 mm Hg, diastolic murmur was heard on the anus. On the review roentgenogram, a shadow of heart of an aortal configuration, the arch of an aorta and a left ventricle is increased. The pulmonary pattern is not changed. Aortic pulsation is enhanced. The detected radiological changes are most likely to correspond to:
A Aortic insufficiency
B Aortic atherosclerosis
C Hypertensive disease
D Dextraposition of the aorta
E Aortic coarctation

5. A 42-year-old man is worried about chest pain, palpitations. Shortness of breath during exercise has recently intensified, and asthma attacks have occurred at night. Intense systolic murmur with the epicenter on the left edge of the sternum is not performed on the vessels of the neck, the second tone is preserved. According to echocardiography: a pronounced hypertrophy of the upper third of the interventricular septum, the left ventricle of normal size, the fraction of its ejection? 65%. The progression of heart failure in the patient is due
A Diastolic left ventricular dysfunction
B Systolic dysfunction of the left ventricle
C Left atrial insufficiency
D Systolic dysfunction of the right ventricle
E Pulmonary arterial hypertension

6. An 20-year-old athlete's echocardiographic examination revealed a small defect in the muscular part of the interventricular septum with a discharge of blood from left to right. What data from a previous clinical examination could indicate such a heart defect?
A Rough systolic murmur on the left edge of the sternum
B Diffuse cyanosis during exercise
C Accent II tone over the pulmonary artery
D Fingers - “drumsticks”
E Epigastric pulsation of the right ventricle

7. At the addict of 26 years within 2 months the body temperature rises to 38-39 (C, there were short winds, hypostases of legs. The positive venous pulse, a pulsation of a liver is defined. Over the lower part of a sternum the holosystolic noise which amplifies during breath Echocardiographic examination is required for diagnosis
A Insufficiency of the three-leaf valve
B Aortic valve insufficiency
C Exudative pericarditis
D Mitral valve insufficiency
E Pulmonary artery valve insufficiency

8. A 22-year-old woman notes rapid fatigue. From an early age, doctors listened to her noise in the heart. Pulse 87 / min, rhythmic. Blood pressure 95/60 mm Hg The percussion boundaries of

the heart are not changed. Systolic murmur is best heard in the second intercostal space to the left of the sternum, the second tone is weakened. On the radiograph of the chest - the expansion of the trunk and the left branch of the pulmonary artery. Most likely in the patient
A Pulmonary artery stenosis
B Stenosis of the aortic eye
C Functional systolic murmur
D Mitral valve prolapse
E Pulmonary artery valve insufficiency

9. A 35-year-old woman was taken with complaints of severe diffuse pain throughout the abdomen, nausea, vomiting. The deterioration occurred 2 days before hospitalization, when the skin of the extremities had a small spotted hemorrhagic rash, cramping abdominal pain, bloody discharge from the rectum. 2 weeks before that she had an acute viral infection. Objectively: blood pressure 90/60 mm Hg. st., heart rate? 95 / min, the abdomen is tense on palpation, there are symptoms of peritoneal irritation. Blood tests show neutrophilic leukocytosis and eosinophilia, a decrease in the number of erythrocytes and hemoglobin. What diagnosis can be made in a patient?
A Hemorrhagic vasculitis
B Hemophilia
C Thrombocytopenic purpura
D Crohn's disease
E Hemorrhoidal bleeding

10. A 50-year-old patient complains of severe weakness, dizziness, spots on the skin. A month ago I had a sore throat and was treated with antibiotics on my own. Objectively: the general condition is severe, the skin and mucous membranes are pale. On the skin of the face and torso spots of different sizes, blue and brown. On palpation, the abdomen is painless, the liver +1.5 cm protrudes from the edge of the right costal arch. General blood test: EP - 1.2? 1012 / l, HB - 50 g / l, CP 0.70, platelets - 2? 109 / l, anisopoikilocytosis. ESR - 55 mm / year. What is the previous diagnosis?
A Thrombocytopenic purpura
B Hemorrhagic vasculitis, abdominal form
C Acute posthemorrhagic anemia
D Myeloma
E Hemophilia

11. A 65-year-old patient complains of shortness of breath, severe cough with a small amount of sputum with streaks of blood, weight loss, then 37.2, loss of appetite, weakness. He has been ill for many years, his condition worsened a year ago, and shortness of breath appeared 3 weeks ago. All his life he smokes, works as a carpenter. About: normal physique, exhausted. Depression of the right half of the chest, restriction of the tour, the participation of additional muscles in the breath, the number of breaths 22 per minute. Percussion over the upper right lobe, auscultatory? breathing is absent, throughout the vesicular hard. On Rtg OGK: the upper right lobe is reduced in size, above it is a homogeneous darkening associated with the root, the root is deformed, the interstitial organs are slightly shifted to the right. Which diagnosis is most likely?
A Obstructive pulmonary atelectasis
B Pneumothorax
C Sarcoidosis of the lungs
D Pulmonary tuberculosis
E Fibrous alveolitis

12. A 20-year-old patient suddenly developed an attack of shortness of breath, intense prickly

pain in the right chest and cough during sports training. About: the patient is sitting in bed, pale. Chest symmetrical, limited tour of the right half, the number of breaths 22 per minute. Above the right half of the chest percussion sound with a tympanic tinge, above the left - a clear lung. Auscultatory on the right is sharply weakened vesicular respiration, on palpation there is a significantly weakened vocal tremor. On Rtg OGK: on the right a clear field without a pulmonary pattern, the lung is reduced, lies closer to the root, the interstitial organs are shifted to the left. Which diagnosis is most likely?

A Spontaneous pneumothorax
B Acute pneumonia
C Pulmonary infarction
D Intercostal neuralgia
E Thromboembolism of small branches of the pulmonary artery

And so 30 tasks 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 IWS reveal the problematic issues of the relevant sections of internal medicine. Maximum use of didactic tools (multimedia presentations, slides, educational films, demonstration of thematic patients).

Practical classes are held on the clinical base of the department. The method of organizing practical classes in internal medicine 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, understanding of responsibility for the level of the preparation, its improvement during training and professional activity.

To implement the relevant section of the student in the first lesson, a detailed plan of work in the clinic is provided and the conditions for its implementation are provided. This plan includes:

- 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;
- patient supervision to be performed by the student during the cycle;
- reports of the patient's medical history in the study group, at clinical rounds, practical conferences.

Curation of the patient involves:

1) clarification of the patient's complaints, medical history and life, conducting surveys 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 of 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..

IWS 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 in laboratories and departments (offices) of functional diagnostics, interpretation of data of laboratory and instrumental methods of research at internal pathology in extracurricular time;
- ✓ mastering practical skills by working with patients;
- ✓ individual IWS (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 carry out IWS during practical classes and monitor and evaluate its implementation. Topics submitted for self-study are evaluated during the final control.

METHODS OF CONTROL

It is recommended to conduct practical classes with inclusion:

1) control of the initial level of knowledge by means 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) 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, problem solving, laboratory research and interpretation and evaluation of their results, analysis and evaluation of instrumental research and parameters that characterize the functions of the human body, 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 given using a 200-point scale of the university, which corresponds to a 200-point scale ECTS.

Final lesson (FL) - 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 the following materials for preparation for the software on the information stand and on the website of the department:

- basic and anchor test tasks "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 FL 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 submitted for independent work, followed by an oral interview with the student, followed by a grade for the FL.

The final semester control is carried out after the completion of the study of the discipline in the form of a final control work (FCW).

FCW is conducted by the teacher of the academic group at the last lesson. Students who have scored at least 70 points in the autumn semester and 40 points in the spring semester are admitted to the FCW. The maximum score in the autumn semester is 120, in the spring - 80. On FCW in the autumn semester the student can receive from 50 to 80 points, in the spring - from 30 to 40 (see the table below).

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 awarded 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 blocks 1 and 2) in the discipline are admitted to the test..

The test in the discipline "Internal Medicine" is a process during which the results obtained for the 6th year are checked:

- 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;
- schedule of students completing missed classes during the semester.

Conducting a test.

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.

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

Distribution of points received by students

As mentioned above, each block (semester) uses a 200-point scale.

In the first block (in the autumn semester) on the current control the maximum sum of points makes 120, the minimum - 70.

This semester 65 practical classes (130 academic hours).

Current control is carried out in 64 practical classes.

Accordingly, **the maximum score for each current practical lesson** is: 120 points: 64 lessons = **1.88 points**. **The minimum score** is 70 points: 64 classes = 1**.09 points.**

A score lower than 1.09 points means "unsatisfactory", the lesson is not credited and must be practiced in the prescribed manner.

Final control (RCC) is carried out at the last, 65th, practical lesson. According to the RCC for block 1, a student can get a maximum of 80 points. PKR is considered credited if the student scored at least 50 points.

In the second block (in the spring semester) on the current control the maximum sum of points makes 80, the minimum - 40.

This semester 70 practical classes (140 academic hours).

Current control is carried out in 69 practical classes.

That is, **the maximum score for each current practical lesson** is: 80 points: 69 lessons = **1.16 points**, **the minimum** - 40 points: 69 lessons = **0.58 points**.

A score lower than 0.58 points means "unsatisfactory", the lesson is not credited and is subject to practice in the prescribed manner.

PKR on block 2 is carried out on the last, 70th, practical employment. In this case, the student can get a maximum of 40 points. The minimum positive score is 30 points.

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

Assessment of student performance

Type of activity (task)	**Maximum number of points**
Block 1	
Practical classes from 1 to 64	1,88 points for each lesson
A total of 64 classes	120
Final control work on block 1 (practical lesson 65)	80

Together for block 1	200
Block 2	
Practical classes from 1 to 69	1,16 points for each lesson
A total of 69 lessons	80
Final control work on block 2 (practical lesson 70)	40
Together for block 2	120
Test	80
Together for block 2 and credit	200

Criteria for assessing knowledge

With a score of 1.88 points in the autumn semester (1.16 points in the spring semester), 71-80 points in the RCC in the autumn semester (38-40 points in the spring semester) and 71-80 points in the test (A on the ECTS scale and 5 on a national scale) **the student's response is evaluated if it demonstrates a deep knowledge of all theoretical positions and the ability to apply theoretical material for practical analysis and has no inaccuracies.**

With a score of 1.49 points in the autumn semester (0.87 points in the spring semester), 61-70 points on the RCC in the autumn semester (35-37 points on the RCC in the spring semester) and 61-70 points on the test (B and C for ECTS scale and 4 on the national scale) **the answer is evaluated if it shows knowledge of all theoretical provisions, the ability to apply them in practice, but some fundamental inaccuracies are allowed.**

Score of 1.09 points in the autumn semester (0.58 points in the spring semester), 50-60 points on the RCC in the autumn semester (30-34 points on the RCC in the spring semester) and 50-60 points on the credit (D and E for 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 (basic)

1. Internal medicine: Poradnik to the doctor of the foreign practice: a master of medicine. / A.S. Svintsitsky, O.O. Abragamovich, P.M. Bodnar ta in .; Ed. prof. A.S. Svintsytsky. - VSV "Medicine", 2014. - 1272 p. + 16s. kolorov. incl.
2. Gastroenterology. Pidruchnik: U 2 T. -T.1 / ed. Prof. N.V. Kharchenko., O. Ya. Babak. - Kirovohrad: Polium, 2016 .-- 488 p.
3. Gastroenterology. Pidruchnik: U 2 T. -T.2 / ed. Prof. N.V. Kharchenko., O. Ya. Babak. - Kirovohrad: Polium, 2017 .-- 432 p.
4. Endocrinology: pedagogue (P.M.Bodnar, G.P. Mikhalchishin, Yu.I. Komisarenko et al.) Ed. Professor P.M. Bodnara, - View. 4, rev. that add. - Vinnytsia: Nova Kniga, 2017 .-- 456 p.
5. Order of the Ministry of Health of Ukraine dated 06/27/2013 No. 555 "On the consolidation and implementation of medical and technological documents for standardization of medical aid in chronic obstructive disease." Standardized clinical protocol of the first, second (special) and third (highly specialized) medical aid and medical rehabilitation "Chronic obstructive incapacitation of the legend."
6. Order of the Ministry of Health of Ukraine dated 08.10.2013 No. 868 "On the consolidation and implementation of medical and technological documents for standardization of medical aid in bronchial asthma." Standardized clinical protocol of primary, secondary (special) medical aid "Bronchial asthma".
7. Order of the Ministry of Health of Ukraine dated 08.10.2013 No. 866 "On the consolidation and implementation of medical and technological documents for standardization of medical aid in case of non-Hodgkin's lymphomas and Hodzhkin's lymphomas." Standardized clinical protocol

of the first, second (special), third (highly specialized) medical aid "Non-Hodgkin Lymphoma and Hodgkin Lymphoma".

8. Order of the Ministry of Health of Ukraine dated October 31, 2013 No. 943 "On the consolidation and implementation of medical and technological documents for standardization of medical aid for gastroesophageal reflux ailments". Standardized clinical protocol of primary, secondary (special) medical aid "Gastroesophageal reflux ailment".
9. Order of the Ministry of Health of Ukraine dated 01/15/2014 No. 34 "About the consolidation and implementation of medical and technological documents for standardization of emergency medical assistance." Standardization of clinical protocol for emergency medical aid "Gastri Otruunnya", "Hemophilia", "Hypertensive crisis", "Hyperthermia", "Hypovolemic shock,"Order of the Ministry of Health of Ukraine dated 09/03/2014 No. 613 "About the hardening and introduction of medical and technological documents for standardization of medical aid for peptic infection of the slunk and two-fingered intestines." Standardization of the clinical protocol of the first, second (special) medical assistance "Peptic slope of the shlunk and twelve-fingered intestines in the grown-ups."
10. Order of the Ministry of Health of Ukraine dated 06.11.2014 No. 826 "On the consolidation and implementation of medical and technological documents for standardization of medical aid in chronic non-infectious hepatitis." Standardized clinical protocol of primary, secondary (special) medical assistance "Non-alcoholic steatohepatitis".
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11. https://www.eular.org/recommendations_management.cfm
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