MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

Petro Mohyla Black Sea National University

Medical Institute

Department of Therapeutic and Surgical Disciplines

"APPROVE "
The first vice-rector
Ishchenko NM
_____
" " _____ 2021 year

CURRICULUM WORK PROGRAM

Internal Medicine

Developer	Zack M.U	
Head of the Department of Developer	Zack M.U	
Guarantor of the educational program	Klymenko MO	
Director of the Institute	Grishchenko GV	
Chief of EMD	Shkirchak SI	

Mykolaiv – 2021

1. 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	Normative	
Curriculum	4, 5, 6 years	
Academic year	2021 - 2022	
Semester numbers:	Full-time	Correspondence form
	4th course - 7th - 8th 5th course - 9th, 10th 6th course - 11th, 12th	-
Total number of ECTS credits / hours	4 course - 8.0 credits (4/4) / hours 240 5 course - 8 , 5 credits (4 / 4,5) / 255 hours 6 course - 10.0 credits (5/5) / 300 hours	
Course structure:	Full-time	Correspondence form
- lectures	4 course - 35 (15/ 20) 5 course - 18 (8/10)	-
- practical classes	4 course- 105 (45 /60) 5 course- 136 (56/8 0) 6 course- 194 (80/114)	
- hours of independent work of students	4 course - 100 (50/50) 5 course- 101 (50/ 51) 6 course- 106 (70/ 36)	
Percentage of classroom load	Classroom load - 61 %, independent student work - 39 %	
Language of instruction	Ukrainian	
Form of intermediate control (if any)	Certification	
Form of final control	4 course - Exam - 8th semester 5 course- Attestation for the 9th semester , Exam – 10th semester 6 course - Attestation for the 11th semester , Offset - 12th semester	

2. Purpose, tasks and planned learning outcomes

The subject of study of the discipline "Internal Medicine " are the most common somatic diseases of adulthood .

Interdisciplinary links: according to the curriculum, the study of the discipline "Internal Medicine " is provided in the VII- XII semesters. To this the student acquired the relevant knowledge of basic disciplines: medical biology, anatomy, physiology, histology and embryology, bioorganic and biological chemistry, microbiology, virology and immunology, Pathology, pathophysiology, pharmacology, and clinical di subject matter: Propedeutics of Internal Medicine, therapy, surgery, with which the program of the discipline "Internal Medicine " is integrated .

The organization of the educational process is carried out according to the requirements of the European credit transfer system.

The purpose of teaching the discipline "Internal Medicine " is for students to acquire knowledge and professional skills in the most common diseases of internal organs based on knowledge of age anatomical and physiological features of the body, human anatomy, normal physiology, histology, cytology and embryology, biological and bioorganic chemistry. microbiology, virology and immunology, pathological anatomy, pathophysiology, pharmacology, radiology.

Expected learning outcomes. As a result of studying the discipline, students must master how:

Collect complaints, medical history, life history

Collect information about the general condition of the patient (consciousness, constitution, fatness) and appearance (examination of the skin, subcutaneous fat layer, palpation of lymph nodes)

Examine the state of the cardiovascular system (examination and palpation of the heart and superficial vessels, determination of percussion boundaries of the heart and blood vessels, auscultation of the heart and blood vessels)

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

Examine the condition of the abdominal organs (examination of the abdomen, palpation and percussion of the intestines, stomach, liver, spleen, palpation of the pancreas, kidneys, pelvic organs)

Examine the condition of the musculoskeletal system (examination and palpation)

Identify and record the leading clinical symptom or syndrome

Make the most probable or syndromic diagnosis of the disease

Assign laboratory and / or instrumental examination of the patient

Carry out differential diagnosis of diseases

Make a preliminary clinical diagnosis

Determine the nature of treatment of the disease

Determine the necessary mode in the treatment of the disease

Determine the necessary diet in the treatment of the disease

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

The main tasks of studying the discipline "Internal Medicine " are:

-Assimilation of basic theoretical knowledge of etiology, pathogenesis, clinical manifestations, data of laboratory and instrumental methods of research, treatment, prevention and prognosis of the most common diseases of internal organs .

-Mastering the basic practical skills and abilities of diagnosis, differential diagnosis, treatment and emergency care for the most common somatic diseases in humans .

-Formation of students' moral, ethical and deontological qualities in professional communication with patients, as well as the formation of the principles of professional subordination in the clinic of internal medicine .

According to the requirements of the educational-professional program, students must

know:

-definition, prevalence, classification, etiology and pathogenesis of the most common diseases of internal organs ;

-clinical manifestations in the uncomplicated and complicated course of the most common diseases of the internal organs ;

-criteria for establishing a preliminary clinical diagnosis of the most common somatic diseases in patients of different ages ;

-plan of laboratory and instrumental examination of patients with the most common somatic diseases ;

-criteria for establishing a final clinical diagnosis in the most common somatic diseases ;

-treatment of the most common diseases of the internal organs of somatic diseases of childhood;

-protocol of emergency care for the most common diseases of the internal organs ;

-prevention of the most common somatic diseases ;

-prognosis for the most common diseases of the internal organs ;

-the basic principles of medical ethics and deontology with professional th communication with patients and persons who take care of patients ;

-basic principles of professional subordination in the clinic of internal medicine .

be able to :

-To determine the etiological and pathogenic factors of the most common diseases of the internal organs ;

-Identify the leading pathological symptoms and syndromes in the most common diseases of the internal organs ;

-Identify different clinical variants and complications of the most common diseases of the internal organs ;

-To determine the tactics of the patient with the most common diseases of the internal organs ;

-Demonstrate the ability to keep medical records in a therapeutic clinic ;

-Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination in the clinic of internal medicine ;

-Diagnose and provide emergency care for major emergencies in the therapeutic clinic ;

-To make a life forecast for the most common somatic diseases of the internal organs ;

-Diagnose and provide medical care in emergencies in a therapeutic clinic ;

-Classify and analyse the typical clinical picture of the most common somatic diseases in the therapeutic clinic ;

-Plan examination of a sick child and interpret the results of the most common diseases of the internal organs ;

-Make a plan of examination and analyse the data of laboratory and instrumental examinations in the typical course of the most common somatic diseases of therapeutic patients ;

-Interpret the general principles of treatment, rehabilitation and prevention of the most common somatic diseases in patients of different ages .

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

general (GC) - GC1-GC10 EPP :

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and master modern knowledge.

G**C2** . Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make an informed decision; work in a team; interpersonal skills.

GC6 . Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies.

GC8. Definiteness and persistence in terms of tasks and responsibilities.

GC9. The ability to act socially responsibly and consciously.

GC10. The desire to preserve the environment.

professional (PC) - PC1 - PC9, PC 11, PC 13, PC 16, PC 18:

- **PC1.** Patient interviewing skills.
- **PC2.** Ability to determine the required list of laboratory and instrumental studies and evaluate their results.
- **PC3.** Ability to establish a preliminary and clinical diagnosis of the disease.
- **PC4.** Ability to determine the required mode of work and rest in the treatment of diseases.
- **PC5.** Ability to determine the nature of nutrition in the treatment of diseases.
- **PC6.** Ability to determine the principles and nature of disease treatment.
- **PC7.** Ability to diagnose emergencies.
- **PC8.** Ability to determine the tactics of emergency medical care.
- **PC9.** Emergency care skills.
- **PC11.** Skills to perform medical manipulations.
- **PC13.** Family planning counselling skills.
- **PC16.** Ability to determine the tactics of management of persons subject to dispensary supervision.
- **PC18.** Ability to keep medical records.

According to the educational-professional program, the expected ***program learning outcomes (PLO)*** include skills ***PLO11, PLO13-PLO18, PLO21-PLO28, PLO30, PLO 32, PLO 33, PLO 35, PLO 41:***

- **PLO 11** : Collect data on patient complaints, medical history, life history (including occupational 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 institution, its department, at the patient's home , etc.), using knowledge about the person, his organs and systems, according to certain algorithms:

• collect information about the general condition of the patient (consciousness, constitution) and appearance (examination of the skin, subcutaneous fat layer, palpation of lymph nodes, thyroid and mammary glands); assess the psychomotor and physical development of the child;

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

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

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

- examine the condition of the musculoskeletal system (examination and palpation);
- examine the state of the nervous system;
- examine the condition of the genitourinary system; assess the state of fetal development according to the calculation of fetal weight and auscultation of its heartbeat

- **PLO 13**. In the conditions of the 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 history, physical examination of the patient, knowledge about the person, his

organs and systems, adhering to relevant ethical and legal norms.

- Be able to establish the most probable or syndromic diagnosis

disease (according to list 2) by making an informed decision, by comparing with standards, using preliminary patient history and patient examination data, based on the leading clinical symptom or syndrome, using knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms.

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

- Assign a laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, based on

most probable or syndromic diagnosis, according to standard schemes, using knowledge about the person, 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, 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, laboratory and instrumental examination of the patient, conclusions differential diagnosis, knowledge of the person, his organs and systems, adhering to ethical and legal norms.

- **PLO 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 home in patient and at the stages of medical evacuation, including in the field, on the basis of a preliminary clinical diagnosis, using knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms, by making informed decisions according to existing algorithms and standard schemes.

- **PLO 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 preliminary clinical diagnosis, using knowledge about the person, his bodies and systems, adhering to the relevant ethical and legal norms, by making an informed decision on the existingalgorithms and standard schemes.

- **PLO 17**. Determine the nature of treatment (conservative, operative) 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 the person , its bodies and systems, adhering to the relevant ethical and legal norms, by making an informed decision on the existingalgorithms 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.

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

- **PLO 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, withtaking into account the existing system of medical and evacuation support.

- **PLO 22**. Perform medical manipulations (according to list 5) in a medical settinginstitutions, at home or at work on the basis of a 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 informed decisions and using standard techniques.

- **PLO 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:

- to evaluate the patient and medical criteria of acceptability of the method of contraception;
- determine the patient's examination plan before choosing a method of contraception;
- provide family planning consultations;
- to select a modern method of contraception for different categories

population.

- PLO 25. To form, in the conditions of a health care institution, its division on production, using the generalized procedure of an estimation 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).

- PLO 26. Implement a system of anti-epidemic and preventive measures in a health care institution, its unit on the basis of data on the health of certain contingents of the population and the impact on the environment, using existing methods, within the primary health care, of:
- 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 pregnancy;

promoting a healthy lifestyle.

- PLO 27. Implement a system of primary prevention measures, based on data on the state of health of the population served and the presence of the determinants of health, in the health care facility and outside it using existing methods, within the primary health care:
- sanitary and educational measures to prevent the occurrence of infectious and non-infectious diseases, injuries and the promotion of a healthy lifestyle;
- organization of rational nutrition, safe social and living conditions, water supply;

mode of activity and rest.

- PLO 28. Organize secondary and tertiary prevention measures among the assigned contingent of the 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 relevant ethical and legal norms, by making an informed decision, in a health care facility, in particular:
to form groups of dispensary supervision;
to organize medical and health-improving measures differentiated from the group of medical examination.

- PLO 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.

- PLO 32. In the health care institution, or at the patient's home on the basis of the obtained data on the patient's health, using standard schemes, using knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms, by making an informed decision:
- determine the tactics of examination and secondary prevention of patients that

subject to dispensary supervision;
- to determine the tactics of examination and primary prevention of healthy persons subject to dispensary supervision;
- calculate and prescribe the necessary food for children in the first year of life.

- PLO 33. Determine the presence and degree of restrictions on life, type, degree and duration of disability with the execution of relevant documents, inconditions of the health care institution on the basis of data on the disease and its course, features of professional activity of the person.

- **PLO 35**. On the territory of service according to standard methods of descriptive, analytical epidemiological and medical-statistical researches:

- to conduct screening to identify the most important non-communicable diseases;
- evaluate the dynamics and comparison with the average static data of morbidity, including chronic noncommunicable diseases, disability, mortality, integrated health indicators;

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

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

- to select and use unified clinical protocols for medical care, developed on the basis of evidence-based medicine;
- participate in the development of local protocols for medical care;
- to control the quality of medical care on the basis of statistical data, expert evaluation and sociological research data using indicators of structure, process and results of activities;
- identify factors that hinder the improvement of quality and safety medical care.

3. The program of the discipline

4th COURSE (7-8 semesters)

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

BLOCK 1. DISEASES OF THE DIGESTIVE OR RESPIRATORY SYSTEM

SECTIONS :

1. Basics of diagnosis, treatment and prevention of major diseases of the digestive system (64/2,0).
2. Basics of diagnosis, treatment and prevention of major respiratory diseases (46/ 2,0).

BLOCK 2. ENDOCRINE AND HEMATOLOGICAL PATHOLOGY, GENERAL ISSUES OF CARDIOLOGY, MEDICAL GENETICS

SECTIONS :

3. Basics of diagnosis, treatment and prevention of major endocrine diseases (45/1,0).
4. Basics of diagnosis, treatment and prevention of major diseases of the blood and blood-forming organs (21/ 1,0).
5. General issues of cardiology medicine (17/1,0).
6. Medical genetics (47/1.0).

BLOCK 1. DISEASES OF THE DIGESTIVE OR RESPIRATORY SYSTEM

SECTION 1. FUNDAMENTALS OF DIAGNOSIS, TREATMENT AND PREVENTION OF MAJORAL DISEASES OF THE DIGESTIVE ORGANS

Topic 1. Gastroesophageal reflux disease

Definition. Etiology, pathogenesis. Classification. Erosive and non-erosive GERD. Clinical manifestations depending on the variant and stage. Data of laboratory and instrumental research methods. Diagnosis criteria , differential diagnosis. Complication. Differentiated therapy. Primary and secondary prevention.

Topic 2. Dyspepsia. Chronic gastritis

Determination of dyspepsia. Etiology and pathogenesis. The role of N. rulori in the occurrence of gastroduodenal pathology. Classification. Unexplored and functional dyspepsia. Criteria for diagnosis. Differential diagnosis . Modern approaches to the treatment of functional dyspepsia. Primary and secondary prevention. Forecast and efficiency.

Definition, etiology and pathogenesis of chronic gastritis. The role of N. rulori in the occurrence of chronic gastritis. Classification. Clinical manifestations, data of laboratory and instrumental research methods. The value of

endoscopic (with morphology) research. Differential diagnosis. Modern approaches to the treatment of various types of chronic gastritis. Primary and secondary prevention. Forecast and efficiency.

Topic 3. Peptic ulcer of the stomach and duodenum

Definition. The main causes of peptic ulcers (H. pylori, drugs, etc.). Classification. Clinical manifestations. Complications (perforation, penetration, bleeding, stenosis, malignancy). The value of instrumental and laboratory diagnostic methods. Methods of diagnosis of Hp infection. Differential diagnosis . Tactics of patient management. Eradication therapy, control of eradication efficiency. Drug therapy of Hp-negative ulcers. Indications for surgical treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 4. Celiac disease and other enteropathies

Definition. Etiology, pathogenesis. The role of intolerance of food components, immune factors and enzymopathies (lactose intolerance, fructose, galactose, etc.). Malabsorption and maldigestion syndromes. Diagnosis criteria, differential diagnosis . Complication. Differentiated therapy. Primary and secondary prevention. Forecast and efficiency.

Topic 5. Inflammatory bowel disease. Irritable bowel syndrome

Ulcerative colitis and Crohn's disease: definition, etiology and pathogenesis. Classification. Features of the clinical course depending on the degree of activity, severity and phase of the course. Laboratory and instrumental diagnostics. Diagnosis criteria, differential diagnosis. Intestinal and extraintestinal complications and diseases associated with inflammatory bowel disease (toxic dilatation, perforation, sclerosing cholangitis, spondylitis, arthritis, dermatoses, uveitis, etc.). Treatment. Primary and secondary prevention. Forecast and efficiency.

Irritable bowel syndrome, definition. Etiology and pathogenesis. Classification. Clinical manifestations of different variants. Roman diagnostic criteria. Differential diagnosis. Treatment of various forms. Primary and secondary prevention. Forecast and efficiency.

Topic 6. Gallstone disease, chronic cholecystitis and functional disorders of the biliary tract

Definition. Etiology, pathogenesis. Significance of infection, motility disorders and dyscholia in the development of chronic cholecystitis, cholangitis and gallstone disease. Classification. Features of the clinical course. Laboratory and instrumental diagnostic methods. Differential diagnosis. Complications of gallstone disease. Treatment . Indications for surgical treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 7. Chronic hepatitis

Definition. Classification. The role of persistence of the virus, toxic and medicinal agents, immune disorders and alcohol. Methods of diagnosis of viral infection. Autoimmune, toxic (drug-induced) and chronic viral hepatitis. Alcoholic liver disease. Basic clinical and biochemical syndromes. Features of the clinical course and diagnosis of individual forms. Differential diagnosis. Complication. Features of treatment of various forms. Primary and secondary prevention. Forecast and efficiency.

Topic 8. Cirrhosis of the liver

Definition. Significance of viral infection, nutritional factors, alcohol, toxic substances, genetically determined metabolic defects and immune disorders. Classification. Features of clinical manifestations and diagnosis of different options. Differential diagnosis. Liver failure and other complications. Differentiated therapy. Urgent therapy for complications. Primary and secondary prevention. Forecast and efficiency.

Topic 9. Chronic pancreatitis

Definition. Significance of various etiological factors. Classification. Features of the clinical course, diagnosis and differential diagnosis depending on the form and location of the pathological process. Complication. Research methods in the diagnosis of pancreatitis. Differentiated treatment. Primary and secondary prevention. Forecast and efficiency.

SECTION 2. FUNDAMENTALS OF DIAGNOSIS, TREATMENT AND PREVENTION OF MAJOR DISEASES OF THE RESPIRATORY ORGANS.

Topic 1. Chronic obstructive pulmonary disease

Definition. Importance of smoking, environmental and occupational factors, the role of exacerbations in the development and progression of chronic obstructive pulmonary disease . Classification. Clinical manifestations, data of laboratory and instrumental research methods depending on the stage and clinical course. Differential diagnosis. Complication. Treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 2. Bronchial asthma

Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care . Primary and secondary prevention. Forecast and efficiency.

Topic 3. Pneumonia

Definition. Etiology. Classification. Clinical manifestations and features of the course depending on the pathogen . D or laboratory and instrumental methods. Differential diagnosis. Complications (acute respiratory distress syndrome, destruction of lung tissue, acute respiratory failure and others). Differentiated treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 4. Pleurisy

Definition. Etiological factors. Classification. Clinical manifestations, data of laboratory and instrumental research methods. Differential diagnosis. Complication. Indications for pleural puncture and drainage of the pleural cavity. Treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 5. Infectious and destructive lung diseases

Definition. Factors that contribute to the development of bronchiectasis, abscess and lung gangrene. Clinical manifestations, data of laboratory and instrumental research methods. Differential diagnosis. Complication. Treatment. Indications for surgical treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 6. Respiratory failure

Definition. Classification. Causes. Features of the clinical course. Diagnosis, study of the function of external respiration, arterial and venous blood gases, indicators of acid-base status of blood. Therapeutic tactics. Primary and secondary prevention. Forecast and efficiency.

BLOCK 2. ENDOCRINE AND HEMATOLOGICAL PATHOLOGY, GENERAL ISSUES OF CARDIOLOGY, MEDICAL GENETICS

SECTION 3. FUNDAMENTALS OF DIAGNOSIS, TREATMENT AND PREVENTION OF ENDOCRINE DISEASES

Topic 1. Diabetes mellitus, classification, etiology, pathogenesis, clinic, diagnosis.

Determination of diabetes mellitus. Epidemiology of diabetes in Ukraine and the world, prognosis, prevalence of diabetes in different age groups. Etiology and pathogenesis of diabetes mellitus. Type 1 diabetes: the role of viral infection and autoimmune processes, genetic predisposition. Type 2 diabetes: the role of genetic predisposition, obesity, external factors. Insulin resistance and impaired insulin secretion. Classification of glycemic disorders (WHO, 1999), clinical types of diabetes mellitus. Characteristics of lesions of internal organs in diabetes mellitus: cardiovascular system, hepatobiliary system, urinary organs, diabetic osteoarthropathy. Diagnosis of diabetes. Criteria for the diagnosis of diabetes mellitus and other categories of hyperglycemia (WHO, 1999). Indications and rules for glucose tolerance test. Diagnostic value of glycated hemoglobin, fructosamine, C-peptide, glucosuria, ketonuria.

Topic 2. Type 1 and type 2 diabetes, modern methods of therapy.

General principles of diabetes therapy. Criteria for compensation of carbohydrate metabolism in patients with type 1 diabetes. Insulin therapy. Characteristics of the main insulin preparations, including domestic production Indications for their use. Classification of ultrashort, short, intermediate and long-acting insulin preparations, insulin analogues. Calculation of daily insulin requirements. Insulin dose adjustment with bread units. Insulin therapy regimen:

traditional, intensified and pump insulin therapy. Cell therapy. Complications of insulin therapy: hypoglycemic conditions, insulin allergy, post-injection lipodystrophy, insulin resistance, chronic insulin overdose (Somogy syndrome), insulin edema. Spa treatment. Protocols for the care of patients with type 1 diabetes mellitus.

Algorithm for the treatment of type 2 diabetes. The main methods of treatment of type 2 diabetes: nutrition, dosed exercise, drug therapy, teaching the patient self-control. Diet therapy for diabetes. Rational nutrition: physiology, energy value, restriction of refined carbohydrates, consumption of dietary fiber, trace elements, vitamins. Dosed physical activity and rules of its appointment. Drug therapy: insulin sensitizers (metformin, thiazolidinediones), insulin secretagogues (sulfonylurea derivatives, alumina), incretin drugs (glucagon-like peptide analogues (GPP-1), inhibitors, α inhibitors) renal glucose reabsorption), insulin therapy, protocols for the provision of medical care to patients with type 2 diabetes mellitus.

Topic 3. Acute and chronic complications of diabetes. Features of the course and treatment of diabetes mellitus in surgical patients during pregnancy.

Ketoacidotic conditions with diabetic (hyperketonemic) coma. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment. Hyperosmolar (non-cytodic) diabetic coma. Lactic acidosis and coma. Hypoglycemic coma, hypoglycemic states. Etiology, pathogenesis, clinic, diagnosis, treatment.

Chronic complications of diabetes. Microvascular lesions (diabetic retinopathy, nephropathy, neuropathy); macrovascular lesions (coronary heart disease, cerebrovascular disorders, diabetic foot). Classification, diagnosis and treatment. Principles of treatment of pregnant women with diabetes. Features of urgent and planned surgical interventions in patients with diabetes mellitus.

Topic 4. Iodine deficiency diseases of the thyroid gland. Signs of endemic terrain according to the WHO. Clinic, diagnosis, prevention and treatment. Hypothyroidism and thyroiditis. Classification, diagnosis, clinic, treatment.

Definition of "iodine deficiency". Manifestations of iodine deficiency. Determination of iodine deficiency areas by the prevalence of goiter in different age groups and ioduria data. Determination of the size of the thyroid gland. The concept of simple non-toxic and nodular forms of goiter. Influence of exogenous environmental factors and man-made catastrophes on nuclear power facilities on the condition of the thyroid gland and the prevalence of its pathology. Iodine prophylaxis: mass, group, individual. The importance of iodized salt in the prevention of iodine deficiency diseases. Restrictions on the use of drugs based on potassium iodide.

Hypothyroidism, etiology, pathogenesis, clinic, diagnosis. Hypothyroidism is primary, central, peripheral, subclinical, transient. Timely diagnosis of congenital hypothyroidism. Age features of hypothyroidism. Hypothyroidism on the background of autoimmune polyendocrinopathies. Subclinical Hypothyroidism. Treatment of hypothyroidism. Pregnancy and Hypothyroidism. Medical and social examination of patients with hypothyroidism. Thyroiditis. Clinic, diagnosis and treatment.

Topic 5. Thyrotoxicosis. Clinical forms. Diagnosis, treatment. Thyroid cancer. Classification, clinic, diagnosis, treatment. Diseases of the thyroid gland.

Diseases accompanied by thyrotoxicosis. Etiology, pathogenesis, clinical manifestations of diffuse toxic goiter, thyrotoxic and endocrine ophthalmopathy. Age features of toxic goiter in children and the elderly. 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. Complications of goiter treatment. Medical and social examination of patients with toxic goiter.

Nodular forms of goiter. Monitoring with nodes in the thyroid gland.

Pathomorphological classification of thyroid tumors. Rationale for the diagnosis of thyroid cancer. The role of the Chernobyl accident in the development of thyroid cancer. Modern scheme of treatment, rehabilitation and dispensary observation of patients with thyroid cancer. Anatomical and physiological data. Diseases of the thyroid gland. Hyperparathyroidism. Etiology. Pathogenesis. Classification. Clinic, clinical forms of hyperparathyroidism. Diagnosis. Differential diagnosis. Treatment. Indications for surgical treatment. Postoperative

period and rehabilitation of patients. Drug therapy. Hypoparathyroidism. Etiology. Pathogenesis. Classification. Clinic. Diagnosis. Differential diagnosis. Forecast. Prevention. Treatment. Clinical forms.

Topic 6. Diseases of the adrenal glands. Chronic insufficiency of the adrenal cortex. Etiology, pathogenesis, clinic, diagnosis, prevention and treatment. Hormonally active tumors of the adrenal glands.

Hormones of the cortex and cerebral layer of the adrenal glands. Definition, prevalence of acute and chronic adrenal insufficiency. Chronic adrenal insufficiency (Addison's disease). Etiology, pathogenesis, clinic, diagnosis, prevention and treatment. Acute adrenal insufficiency. Etiology, pathogenesis, clinic, diagnosis, prevention and treatment. Classification of adrenal tumors. Itsenko-Cushing's syndrome (corticosteroma, glucosteroma). Clinic, diagnosis and differential diagnosis, treatment. Androsteroma, corticosteroma. Clinic, diagnosis and differential diagnosis, treatment. Primary hyperaldosteronism (Conn's syndrome). Clinic, diagnosis and differential diagnosis, treatment. Pheochromocytoma. Clinic, diagnosis and differential diagnosis, treatment. Determination of congenital hyperplasia of the adrenal cortex. Clinical forms, diagnosis, treatment.

Topic 7. Diseases of the hypothalamic-pituitary system. Adiposity. Diseases of the gonads.

Classification of hypothalamic-pituitary diseases. Acromegaly. Etiology and pathogenesis. Clinic. Diagnosis and differential diagnosis. Treatment. Itsenko-Cushing's disease. Etiology and pathogenesis. Classification. Clinic. Diagnosis and differential diagnosis. Treatment. Hyperprolactinemia syndrome. Classification. Etiology and pathogenesis. Clinic. Diagnosis, differential diagnosis. Treatment. Hypopituitarism. Etiology and pathogenesis. Clinic. Diagnosis and differential diagnosis. Treatment. Diabetes mellitus. Etiology and pathogenesis. Clinic. Diagnosis and differential diagnosis. Treatment. Somatotropic insufficiency. Hypopituitarism. Classification. Etiology and pathogenesis. Clinic. Diagnosis, differential diagnosis. Treatment. Adiposity. Etiology and pathogenesis. Classification. Clinic. Diagnosis. Treatment. Obesity in children and adolescents.

Gonads in men and women. Hormones. Congenital disorders of sexual differentiation. Agenesis of the gonads. Shereshevsky - Turner syndrome. Hermaphroditism syndrome. Cryptorchidism. Mono- and anorchism syndrome. Klinefelter's syndrome. Sexual development disorders in boys and girls. Climax in women and men.

SECTION 4. FUNDAMENTALS OF DIAGNOSIS, TREATMENT AND PREVENTION OF MAJOR DISEASES OF BLOOD AND BLOOD-FORMING ORGANS.

Topic 1. Hemophilia and thrombocytopenic purpura

Definition. Etiology and pathogenesis, main clinical syndromes. Criteria for diagnosis. Differential diagnosis. Treatment. Prevention of bleeding. Primary and secondary prevention. Forecast and efficiency.

Topic 2. Anemia (posthemorrhagic, iron deficiency, $_{B12-}$deficient, folate-deficient, aplastic, hemolytic)

Definition. Etiological factors and pathogenesis. Mechanisms of intravascular and intracellular hemolysis. Features of clinic and laboratory diagnostics of various forms. Differential diagnosis. Complication. Treatment. Transfusion of blood components and blood substitutes. Primary and secondary prevention. Forecast and efficiency.

Topic 3. Acute leukemia

Definition. Modern views on the etiology and pathogenesis. Classification. The main clinical and hematological syndromes. Clinical manifestations. Criteria for diagnosis. Differential diagnosis. Complication. Principles of treatment. Bone marrow transplantation. Primary and secondary prevention. Forecast and efficiency.

Topic 4. Chronic leukemias

Definition of chronic myeloid leukemia, chronic lymphoid leukemia, myeloma, true polycythemia. Modern views on the etiology and pathogenesis. Classification. The main clinical manifestations and clinical and hematological syndromes. Criteria for diagnosis. Differential diagnosis. Complication. Principles of treatment. Bone marrow transplantation. Primary and secondary prevention. Forecast and efficiency.

SECTION 5. GENERAL AND ISSUES OF INTERNAL MEDICINE.

Topic 1. Principles of evidence-based medicine

Definition of the concept. The role of evidence-based medicine in modern clinical practice. Components of evidence-based medicine. Basic concepts of clinical trials. Medical and ethical aspects of evidence-based medicine.

Topic 2. Diagnosis and treatment of diseases of the internal organs in the elderly

Features of metabolism in old age. Frequency of comorbid pathology in the elderly. Features of the effect of drugs on the body of the elderly. Features of diagnosis and treatment of diseases of internal organs in old age.

Topic 3. Obesity and its consequences

The urgency of the problem. Methods of calculating overweight (body mass index) and determining obesity. Classification of obesity. The main medical consequences of obesity are metabolic syndrome, diabetes, cardiovascular diseases and diseases of the gastrointestinal tract. Modern approaches to medical and non-medical treatment.

SECTION 6. MEDICAL GENETICS

Topic 1. The subject and objectives of medical genetics.

The role of heredity in human pathology. Clinical and genealogical method. Cytogenetic and molecular genetic methods. Biochemical methods. Morphogenetic variants of development. Developmental defects.

Topic 2. General characteristics of monogenic pathology.

Clinic and genetics of some forms of monogenic diseases. Hereditary metabolic diseases. Principles of treatment of hereditary diseases, rehabilitation and social adaptation.

Topic 3 . Chromosomal diseases.

Etiology and cytogenetics of chromosomal diseases. Classification of chromosomal diseases. Chromosomal aberrations and genomic mutations. Partial trisomies and monosomies. Complete and mosaic forms. Single parent disomies. Chromosomal imprinting. Age of parents and frequency of chromosomal diseases in children.

Topic 4. Medical and genetic counseling. Prenatal diagnosis. Screening programs.

The severity of hereditary pathology. Ethnic, geographical, social factors that cause differences in the prevalence of hereditary pathology. Genetic and demographic processes and the prevalence of hereditary diseases. Types of prevention of hereditary diseases: primary, secondary and tertiary prevention. Prevention levels: pregametic, presygotic, prenatal and postnatal.

5th COURSE (9-10 semesters)

BLOCK 1. CURRENT ISSUES OF CLINICAL PHARMACOLOGY, MILITARY THERAPY, OCCUPATIONAL DISEASES, CLINICAL IMMUNOLOGY, ALLERGOLOGY OF TECHNOLOGY

SECTIONS:

1. Current issues of clinical pharmacology (20/1,0).
2. Current issues of military therapy (29/1,0).
3. Occupational diseases in therapeutic practice (18/0.5).
4. Current issues of clinical immunology and allergology (25/1,0).
5. Current issues of nephrology (22/0.5)

BLOCK 2. FUNDAMENTALS OF DIAGNOSIS, TREATMENT AND PREVENTION OF PATHOLOGY OF INTERNAL ORGANS

SECTIONS:

6. Current issues of rheumatology (49/2,0)
7. Basics of diagnosis, treatment and prevention of diseases of the cardiovascular system (92/2,5).

BLOCK 1. CURRENT ISSUES OF CLINICAL PHARMACOLOGY, MILITARY THERAPY, OCCUPATIONAL DISEASES, CLINICAL IMMUNOLOGY, ALLERGOLOGY OF TECHNOLOGY

SECTION 1 - CLINICAL PHARMACOLOGY

Current issues of clinical pharmacology

Topic 1. Subject, tasks of clinical pharmacology. Clinical pharmacodynamics, pharmacokinetics of drugs.

Subject, tasks, purposes of studying clinical pharmacology. Basic concepts of discipline. Algorithm for drug selection for a specific patient.

Topic 2. Clinical and pharmacological characteristics of antihypertensive and hypertensive drugs. Curation of patients.

Principles of treatment of hypertension and symptomatic hypertension. Classification of antihypertensive drugs. Rationale for the choice of drug depending on the stage and degree of hypertension and the type of hemodynamics. Characteristics of first and second line drugs. Dose regimen. Comparative characteristics of drugs in terms of effectiveness, compatibility of drugs in different variants of the course and the presence of concomitant pathology. The choice of drug and dosage regimen depending on age, pregnancy. Evaluation of the effectiveness and safety of the application. Principles of treatment of hypertensive crises.

Etiopathogenetic principles of treatment of arterial hypotension. Classification of hypertensive drugs. Comparative characteristics of drugs, choice of drugs and dosage regimen. Evaluation of the effectiveness and safety of the application.

Topic 3. Clinical and pharmacological characteristics of antianginal, antiischemic and hypolipidemic drugs.

Etiopathogenetic principles of treatment of coronary heart disease. Classification of antianginal drugs. Features of selection and combined use of drugs (organic nitrates, beta-blockers, calcium channel blockers, sidnonimines). Dose regimen. Indications and contraindications to the appointment. Factors that reduce resistance to drugs in this group. Methods for evaluating the effectiveness and safety of use.

Etiopathogenetic principles of atherosclerosis treatment. Classification of hypolipidemic drugs. Rationale for the choice of drug depending on the class of dyslipidemia. Dose regimen, interaction with other groups of drugs. Evaluation of the effectiveness and safety of use. Side effects of drugs.

Topic 4. Clinical pharmacology of drugs that affect the ability of blood to coagulate (thrombolytics, anticoagulants, antiplatelet drugs, coagulants).

Etiopathogenetic mechanisms of increased and decreased ability of blood to coagulate. Classifications of drugs used to treat conditions of increased and decreased thrombosis. Features of application of thrombolytics, anticoagulants, antiplatelets, procoagulants. Methods for evaluating the effectiveness and safety of their application.

Topic 5. Clinical and pharmacological characteristics of anti-inflammatory drugs (nonsteroidal and steroidal).

Modern ideas about pathological physiology and pathological anatomy of inflammation. Classification of anti-inflammatory drugs (steroidal and nonsteroidal). Modern ideas about the mechanism of action. Comparative characteristics of anti-inflammatory drugs. Indications and contraindications to use. Dose regimen. Schemes of glucocorticosteroids. Compatibility of drugs in combination therapy of diseases. Side effects, methods of monitoring the effectiveness and safety of anti-inflammatory drugs.

Topic 6. Clinical and pharmacological characteristics of antibacterial drugs.

Principles of modern antibacterial therapy. Classification of antibiotics and other antimicrobial drugs. The role of antibiotics and other chemotherapeutic drugs in infectious and purulent-inflammatory diseases. The choice of antibacterial agents in accordance with the sensitivity of microorganisms and the localization of the process, the severity

of the disease. Side effects and contraindications to antibacterial therapy. The choice of antimicrobial drugs depending on pharmacokinetics. Age features of antibacterial therapy. Antibiotic resistance and ways to overcome it.
Clinical pharmacology of imidazoles, fluoroquinolones, sulfonamides, nitrofurans.

Topic 7. Clinical and pharmacological characteristics of drugs that affect bronchial patency.

Modern ideas about the etiology and pathogenesis of bronchial obstruction syndrome. Classification of drugs that affect bronchial patency. Pharmacokinetics and pharmacodynamics. Dose regimen. Features of their combined application. Therapeutic efficacy of beta-2-agonists, M-cholinoblockers, methylxanthines. The choice of bronchodilators to relieve an attack of bronchial asthma and systematic therapy of COPD, including - taking into account the associated pathology. Comparative characteristics of their therapeutic value. Side effects of drugs, advantages and disadvantages of different pharmacological groups. Methods for assessing the effectiveness and safety of therapy, taking into account the degree of bronchial obstruction, sputum viscosity, the state of central and peripheral hemodynamics.

Topic 8. Clinical and pharmacological characteristics of drugs that affect the functions of the gastrointestinal tract, hepatobiliary system and pancreas.

Determination of the principles of pharmacotherapy of peptic ulcer of the stomach and duodenum, gastritis, colitis, irritable bowel syndrome, gastroesophageal reflux disease. Values of drugs that affect the secretory function of the stomach (proton pump inhibitors, H_2-histamine blockers, M-cholinoblockers; stimulating secretory function). Antihelicobacter therapy (drugs, doses, duration). Gastrocytoprotectors. Drug regulation of motility of the gastrointestinal tract. Significance of symptomatic agents: antiemetic and emetic, laxative and antidiarrheal. Dose regimen. Modern principles of prevention and treatment of intestinal dysbacteriosis.
Modern principles of treatment of acute and chronic cholecystitis, hepatitis, pancreatitis. Rationale for the choice and characteristics of drugs with enzymatic and anti-enzymatic properties. Features of joint use of drugs. Pharmacokinetics and pharmacodynamics of choleretics, cholekinetics, hepatoprotectors, antispasmodics. Indications and contraindications to the appointment. Side effect. Dose regimen. Methods of monitoring the effectiveness and safety of drugs.

Topic 9. Final control of mastering disciplines.

SECTION 2 - MILITARY THERAPY

Current issues of military therapy

Specific goals

Students must be able to:

- Organize therapeutic care in wartime and in emergencies in peacetime
- Carry out medical sorting of the affected at the stages of first aid and specialized therapeutic care
- Determine differential diagnostic criteria for the severity of acute radiation sickness and provide medical care at the stages of medical evacuation
- H adavaty medical care during medical evacuation with atypical forms of acute radiation sickness
- Carry out the organization of emergency therapeutic care in acute poisoning at the stages of medical evacuation
- Diagnose and carry out staged treatment of those affected by toxic substances in wartime and in emergencies in peacetime
- Diagnose and provide medical care for conditions / diseases caused by exposure to thermal factors (heat and cold)
- Diagnose and treat diseases of internal organs in the wounded at the stages of medical evacuation and injuries in disasters and accidents in peacetime
- Diagnose, provide care and prevention of combat mental trauma .
- Carry out prevention of acute radiation sickness, acute poisoning, conditions / diseases caused by thermal factors, diseases of internal organs during combat surgical trauma and injuries in the conditions of catastrophes and accidents in peacetime and combat mental trauma.

Topic 10. Organization of therapeutic care in wartime and in emergencies in peacetime. General issues of organization of therapeutic care in wartime and in emergencies in peacetime. Characteristics of modern combat therapeutic pathology . Structure and nature of sanitary losses of therapeutic profile. Principles of medical sorting of patients and victims of therapeutic profile. Types and scope of medical care for the affected and patients of therapeutic profile at the stages of medical evacuation.

Topic 11. Radiation damage. The concept of radiation injury, medical care at the stages of medical evacuation. Acute radiation sickness. Stage treatment of patients with acute radiation sickness. Atypical forms of radiation sickness. Stage treatment of acute radiation sickness. Types of ionizing radiation, units of measurement and dosimetry. The main links of biological action of ionizing radiation and pathogenesis of the main clinical forms of radiation damage.

Clinic and diagnosis of various forms of acute radiation sickness. Features of radiation damage in peacetime. Classification of bone marrow form of acute radiation sickness. Features of the clinical picture in different periods of the disease. differential diagnostic criteria for the severity of the disease. identification of life-threatening conditions at each stage of the evacuation. Types of atypical forms of acute radiation sickness. Features of the clinic of acute radiation sickness with external uneven irradiation, combined radiation damage, internal irradiation, combined irradiation, neutron lesions and prolonged exposure to small doses.

Principles of pathogenetic treatment of acute radiation sickness taking into account the leading manifestations of the disease. the amount of medical care at the stages of medical evacuation. Providing medical care at the stages of medical evacuation.

Topic 12. Diseases of the internal organs in combat surgical trauma and injuries in disasters and accidents in peacetime.

Classification of pathological changes of internal organs in the wounded. General gunshot wound syndromes. Diseases of the internal organs in the wounded. Treatment of diseases of internal organs in the wounded at the stages of medical evacuation. Prevention.

Topic 13. Burn disease. Diseases caused by exposure to thermal factors (heat and cold). Prolonged compression syndrome.

Burn disease. Definition, pathogenesis and classification. The main clinical manifestations and complications. Diagnosis. Staged treatment of patients with burns. Features of treatment of burn shock.

Prolonged compression syndrome. Definition. Pathogenesis, classification, clinical manifestations. The amount of assistance at the stages of medical evacuation.

The concept of overheating, hypothermia. Complications from internal organs under the influence of thermal factors. Features of the clinic, diagnosis. Prevention and staged treatment.

Topic 14. Emergencies, providing therapeutic care in life-threatening conditions at the stages of medical evacuation. Combat mental trauma. Emergencies (acute heart failure, coma, fainting, acute respiratory failure, impaired water-electrolyte metabolism, etc.). Terminal states. Providing emergency care at the stages of medical evacuation.

Combat mental trauma. Definition. Diagnosis. Providing assistance. Prevention.

Topic 15. Defeat by poisonous substances in wartime and peace. Classification of toxic substances. Mechanism of toxic action. Clinical manifestations of lesions of toxic substances (chlorine-containing, fluorine-containing, carbon monoxide, ammonia, cyanides, etc.). Diagnosis. Stage treatment of those affected by toxic substances. Volumes of medical care.

SECTION 3 - OCCUPATIONAL DISEASES

Occupational diseases in therapeutic practice

Specific goals

- To determine the possible role and importance of harmful factors of the production environment in the occurrence of occupational diseases.

- Analyze and use to substantiate the relationship of the disease with the working conditions of the patient data of sanitary and hygienic characteristics.

- Resolve the issue of determining the range of persons who are subject to mandatory prior to employment and periodic medical examinations.

- Analyze the results of medical examinations, develop rational recommendations for rehabilitation, employment, treatment of identified patients.

- Identify the degree of disability in occupational diseases, select rational types of work for occupational patients.

- Analyze the stages of formation of occupational pathology as a clinical discipline for internal medicine and the contribution of individual scientists at each of its stages.

Topic 16. General issues of occupational pathology

Occupational pathology as a clinical discipline. History of occupational pathology. Features of diagnostics of occupational diseases and principles of their classification.

The concept, subject and objectives of occupational pathology, its place among clinical and hygienic disciplines. Organization of occupational pathology service and structure of occupational morbidity in Ukraine.

Topic 17. Pneumoconiosis. Silicosis. Silicosis. Carboconiosis. Metalloconiosis. Hypersensitive pneumonitis.

Pneumoconiosis: the concept of pneumoconiosis. Classification. Etiological, radiological and clinical-functional characteristics.

Silicosis. Etiology. Pathogenesis. Stages of silicosis, clinical and radiological characteristics. Complications of silicosis (tuberculosis, spontaneous pneumothorax , bronchiectasis, etc.) - Issues of rational therapy, prevention and examination of efficiency.

Silicosis. General characteristics of this group of pneumoconiosis. The main clinical and radiological forms: asbestosis, talcosis, cement pneumoconiosis. Issues of examination of working capacity and rational employment.

Carboconiosis (anthracnose, graphitosis). Features of the clinical picture. Diagnosis. Issues of medical and labor examination and labor rehabilitation.

Metalloconiosis (siderosis, aluminosis, pneumoconiosis of electric welders, grinders). Features of the clinical picture. Diagnosis. Issues of medical and labor examination and labor rehabilitation.

Hypersensitive pneumonitis - beryllium, bisinosis. Pathogenesis. Features of the clinical course. Diagnosis. Issues of medical and labor examination and labor rehabilitation.

Topic 18. Occupational benzene intoxication. Occupational intoxications with amino, nitro compounds of benzene, carbon monoxide . Respiratory diseases of toxic-chemical etiology.

Ways of entering the poison into the body. Mechanism of action. Clinical features, stages of the disease. The nature of hematological changes. Bone marrow transplantation issues . Differential diagnosis of the main clinical syndromes. Therapy, including antidote. Issues of medical and labor examination and labor rehabilitation.

Clinical and toxicological characteristics of the action of amino and nitro compounds of the aromatic series. Pathogenesis. Clinical picture, course, diagnosis. Prevention, treatment. Issues of medical and labor examination and labor rehabilitation in acute and chronic intoxications.

Acute and chronic lung lesions of toxic-chemical etiology. Chemical compounds of toxic and irritating action. Pathogenesis. Acute lesions of the bronchopulmonary system. Clinical and morphological forms of acute and chronic toxic lesions of the bronchopulmonary system: pulmonary edema, bronchitis, toxic pneumonitis. Diagnosis. Treatment. Examination of working capacity. Prevention.

Topic 19. Occupational neurotoxicosis. Occupational toxic hepatitis and toxic nephropathy. Occupational intoxication used in agricultural work.

Occupational poisoning with a predominant lesion of the nervous system. Characteristics of neurotropic poisons (lead, mercury, manganese, tetraethyl lead). The mechanism of their action on the body. Conditions under which intoxications develop. Pathogenesis. The main clinical syndromes of acute and chronic neurointoxications , course

options, diagnosis. Classification of intoxications by severity (stage of the disease) . Prevention. Treatment. Issues of medical and labor examination and labor rehabilitation.

Occupational intoxications with a predominant lesion of the hepatobiliary system (chlorinated hydrocarbons, naphthalenes, aromatic hydrocarbons, salts of heavy metals). Ways of penetration into the body. Acute and chronic hepatitis of toxic etiology. Clinical and morphological features of toxic hepatitis. Diagnosis. The main biochemical indicators of the functional state of the liver. Differential diagnosis. Treatment. Prevention. Examination of efficiency in toxic hepatitis.

Occupational poisoning with predominant damage to the kidneys and urinary tract. Pathogenesis, clinical manifestations, diagnosis, treatment, prevention, examination of efficiency in case of poisoning by inorganic compounds of mercury (sulema, calomel), cadmium, lithium, gold, benzidine, etc. Neoplasms of the urinary bladder **in** workers in contact with aromatic compounds. Pathogenesis. Clinic. Prevention.

Occupational poisoning by agricultural pesticides. Classification of pesticides. Acute and chronic poisoning by chlorine, phosphorus, organomercury and arsenic compounds derived from carbamic acids. Pathogenesis of intoxications. Clinical manifestations. Possible complications. Prevention. Therapy. Issues of medical and labor examination and labor rehabilitation.

Topic 20. Vibration disease and neurosensory deafness. Altitude and caisson diseases.

Vibration disease. Significant vibration parameters in the development of the disease. Classification. Pathogenesis. Options for the clinical course. Differential diagnosis. Prevention. Treatment. Medical and labor examination and labor rehabilitation.

Occupational diseases due to exposure to industrial noise (neurosensory deafness). Pathogenesis. Clinical manifestations. Diagnosis. Prevention. Treatment. Examination of working capacity.

Occupational diseases associated with changes in atmospheric pressure. The role of deviations in the partial pressure of gases in the genesis of developing syndromes. Conditions associated with increased atmospheric pressure. Pathology at low atmospheric pressure. The concept of altitude and caisson disease. Pathogenesis. Clinical manifestations. Questions of therapy. Preventive measures.

Topic 21. Occupational diseases caused by exposure to electromagnetic radiation and ultrasound, the action of adverse factors of the industrial microclimate.

Occupational diseases caused by exposure to electromagnetic radiation in the radio frequency range, laser radiation and ultrasound. Conditions of their development. Pathogenesis. Clinical picture, course, diagnosis. Prevention and treatment. Issues of medical and labor examination and labor rehabilitation.

Overheating, overcooling. Heat stroke, convulsive disease. Conditions of their occurrence. The pathogenesis of these conditions. Clinical picture, course. Prevention and treatment. Issues of medical and labor examination and labor rehabilitation.

Topic 22. Diseases associated with overexertion of individual organs and systems.

Dissociative motor disorders. Characteristics of the main types of production processes that cause occupational dyskinesia. Clinical classification of occupational forms of this pathology. Pathogenesis. Clinical picture, course, diagnosis. Prevention, treatment. Issues of medical and labor examination and labor rehabilitation.

Diseases of the peripheral nervous system: mono- and polyneuropathy of the upper and lower extremities, including compression and autonomic-sensory radiculopathy (cervical, lumbosacral levels), radiculomyelopathy (cervical and lumbosacral levels). Clinical picture. Diagnosis. Prevention. Treatment. Issues of medical and labor examination and labor rehabilitation.

Chronic myofibrosis of the forearm and shoulder girdle, stenotic ligamentosis, styloidosis (elbow, shoulder), epicondylitis, bursitis of the elbow and knee joints, periarthrosis (shoulder-scapular, elbow, knee), arthrosis, osteoarthritis, osteoarthritis, osteoarthritis, osteoarthritis, osteoarthritis. Clinical picture. Diagnosis. Prevention. Treatment. Issues of medical and labor examination and labor rehabilitation.

SECTION 4 - CLINICAL IMMUNOLOGY AND ALLERGOLOGY

Current issues of clinical immunology and allergology

TOPIC №23. Structure and principles of functioning of the immune system.

Definitions and types of immunity. Central and peripheral organs of the immune system. Factors of innate immunity: cellular (monocytic-macrophage system, killer and granulocyte cells), humoral (complement system, cytokines, etc.). Antigens and their characteristics. Specific immunity, its features, stages of formation and cooperation of immunocompetent cells involved in the formation of the immune response. Populations (T- and B-lymphocytes) and subpopulations (T-helpers of types 1 and 2, T-regulatory, T-CTL) of lymphocytes, stages of their maturation and differentiation, their function. Immunoglobulins, structure, functions. Thymus-dependent and thymus-independent mechanism of antibody synthesis. Structure and properties of circulating immune complexes. The main complex of histocompatibility: structure, properties, function. Regulation of immunity.

Features of immunological anamnesis. Clinical methods of assessing the immune system. Instrumental methods for assessing the immune system. Laboratory methods for assessing the immune system. Humoral innate protection factors. Assessment of cellular immunity. Comprehensive assessment of local immunity.

A comprehensive approach to assessing human immune status. Immunogram, interpretation of results. Possibilities and limitations of immunological methods in the clinic. Features of immunological diagnosis.

Age features of bone marrow, thymus and peripheral lymphoid organs. Age features of functioning of immunocompetent cells. Age features of cytokine production. Age features of development of inflammatory reactions.

Thymus and aging. Immunoregulatory processes in old age. Immune theories of aging. Immunopathology in the elderly.

TOPIC №24. Immunological research methods. Basic rules for assessing immune status.

A comprehensive approach to assessing human immune status. Features of immunological anamnesis. Clinical methods for assessing the state of the immune system. Instrumental methods for assessing the state of the immune system. Identification of the main symptoms and syndromes of immune disorders.

Laboratory methods for assessing the state of the immune system: humoral innate protective factors; assessment of cellular immunity; comprehensive assessment of local immunity.

Immunogram, interpretation of results. Possibilities and limitations of immunological methods in the clinic. Features of immunological diagnosis.

TOPIC №25. Congenital and acquired immunodeficiency diseases.

Congenital immunodeficiency diseases: definition, classification, mechanisms of development. Clinical signs, immunodiagnostics, doctor's tactics, approaches to treatment: combined, T - and B - dependent immunodeficiencies caused by violation of the phagocytic immune system and deficiency of complement proteins.

Acquired immunodeficiency diseases: definition, causes, mechanisms of development, classification, diagnosis. The role of acquired immunodeficiency diseases in the pathogenesis of various diseases. Early detection of secondary immunological insufficiency in the body. The main approaches to treatment and prevention, taking into account the clinical manifestations and features of the course.

Classification of immunotropic drugs, mechanism of action, side effects. Principles of clinical use of immunotropic drugs, indications and contraindications for use.

TOPIC №26. Immune aspects of autoimmune pathology.

Definition of the concept of autoimmune reactions, autoimmune disease. Mechanisms of immunological tolerance failure, the role of genetic factors. Immunodiagnostics, immunopathogenesis. The role of immunological research methods in the early verification of the diagnosis of autoimmune diseases. Autoimmune component in the immunopathogenesis of various human diseases. Modern approaches to the use of new generation immunotropic drugs in the treatment of patients with autoimmune pathology.

Allergic diseases.

TOPIC №27. Atopic diseases.

The role of genetic factors and the environment in the immunopathogenesis of allergies. Modern ideas about allergies and atopy. Atopy as a systemic disease.

Types and main stages of immunological reactions. Methods of allergological examination (allergological anamnesis, fiscal examinations, skin tests) Modern aspects of allergological diagnostics. Screening methods in the assessment of allergies. Elimination and provocative tests in allergology.

Principles of treatment of allergic diseases. Allergen-specific immunotherapy, indications and contraindications. Features of immunopathogenesis of bronchial asthma, hay fever, allergic rhinitis, urticaria, etc. Drug allergy: causes, immunopathogenesis, clinic, allergy diagnosis and prevention.

TOPIC №28. And allergic (not atopic) diseases

Classification of hypersensitivity reactions by Jell and Coombs. The main mechanisms of occurrence and development of immunopathological conditions, their role in the development of various diseases. Mechanisms of development of anaphylactic reactions. Mechanisms of development of humoral cytotoxic reactions. Mechanisms of development of reactions of formation of immune complexes. Mechanisms of development of pathological immune reactions mediated by T-sensitized lymphocytes. Mechanisms of development of autosensitization caused by antibodies.

Non-atopic diseases, immunopathogenesis, immunodiagnostics, clinical manifestations and differential diagnosis. Allergic diseases (serum sickness, exogenous allergic alveolitis, etc.): immunopathogenesis, clinic, immunodiagnostics, immunotherapy. Differential diagnosis of diseases caused by allergic processes and pseudoallergic reactions. Principles of antiallergic therapy and immunotropic treatments in allergology.

SECTION 5 - NEPHROLOGY

Fundamentals of diagnosis, treatment and prevention of major diseases of the urinary system

Specific objectives: students should be able to:

- Conduct surveys and physical examinations of patients with diseases of the urinary system.
- To determine the etiological and pathogenetic factors of diseases of the urinary system.
- Identify a typical clinical picture of diseases of the urinary system.
- Identify the main options for the course and complications of diseases of the urinary system.
- Formulate a preliminary diagnosis of major diseases of the urinary system.
- Make a plan for examination of patients with diseases of the urinary system, justify the use of basic invasive and non-invasive diagnostic methods and determine the indications and contraindications for their implementation, possible complications. .
- Based on the analysis of laboratory and instrumental examination data to make a differential diagnosis, substantiate and formulate a diagnosis of diseases of the urinary system.
- Prescribe treatment, carry out primary and secondary prevention of diseases of the urinary system .
- Determine the prognosis and performance in major diseases of the urinary system.
- Diagnose and care for acute kidney damage.
- 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 1. The main clinical and laboratory syndromes in kidney disease

Topic 2. Instrumental methods of diagnosis in nephrology

Topic 3. Glomerulonephritis and nephrotic syndrome. Renal amyloidosis.

Glomerulonephritis . Definition. Etiology, role of streptococcal infection and immunological disorders in the development of the disease. Pathogenesis. Classification. Clinical manifestations and diagnosis of some forms. Differential diagnosis. Complications (eclampsia, acute left ventricular failure, etc.). Treatment taking into account the morphological variant and clinical course. Primary and secondary prevention. Forecast and efficiency.

Amyloidosis . Definition. Etiology. Pathogenesis. Classification. Clinical manifestations of renal amyloidosis. Diagnostic criteria. Differential diagnosis. Complication. Treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 4. Pyelonephritis. Tubulointerstitial nephritis.

Pyelonephritis . Definition. The role of infection in inflammatory diseases of the kidneys and urinary tract. Classification. Clinical manifestations. Instrumental and laboratory diagnostic methods. Differential diagnosis. Complication. Treatment. Primary and secondary prevention. Forecast and efficiency.

Tubulointerstitial nephritis . Definition. Etiology. Pathogenesis. Clinical manifestations. Diagnostic criteria and differential diagnosis. Complication. Treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 5. Acute kidney damage. Acute and chronic renal failure. Hemodialysis (indications and contraindications).

Definition. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Classification. Clinic and changes in laboratory parameters depending on the stage. Differential diagnosis. Complication. Treatment at different stages.

Renal replacement therapy: hemodialysis, kidney transplantation. Indications and contraindications to renal replacement therapy, complications. Primary and secondary prevention. Forecast and efficiency.

BLOCK 2. FUNDAMENTALS OF DIAGNOSIS, TREATMENT AND PREVENTION OF PATHOLOGY OF INTERNAL ORGANS

SECTION 6 - RHEUMATOLOGY

Topical issues of diseases of the musculoskeletal system and connective tissue

Specific goals

C tudenty be able to:

- Conduct surveys and physical examinations of patients with major diseases of the musculoskeletal system and connective tissue.
- To determine the etiological and pathogenetic factors of major diseases of the musculoskeletal system and connective tissue.
- Identify a typical clinical picture of major diseases of the musculoskeletal system and connective tissue.
- Identify the main options for the course and complications of diseases of the musculoskeletal system and connective tissue.
- Formulate a preliminary diagnosis of major diseases of the musculoskeletal system and connective tissue.
- Make a plan of examination of patients with major diseases of the musculoskeletal system and connective tissue, justify the use of basic invasive and non-invasive diagnostic methods and determine the indications and contraindications for their implementation, possible complications.
- Based on the analysis of laboratory and instrumental examination data to make a differential diagnosis, substantiate and formulate a diagnosis of major diseases of the musculoskeletal system and connective tissue.
- Prescribe treatment, carry out primary and secondary prevention of major diseases of the musculoskeletal system and connective tissue.
- Assess the prognosis and performance of major respiratory diseases.
- Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination.

Topic 1-2. Acute rheumatic fever. Systemic connective tissue diseases (systemic lupus erythematosus). Definition. The role of streptococcal infection and immunological reactivity in the development of acute rheumatic fever. Classification. Clinical picture (carditis, polyarthritis, chorea, skin lesions). The value of laboratory and instrumental research methods . Modern criteria for diagnosis. Differential diagnosis Complications. Treatment taking into account the degree of activity. Primary and secondary prevention. Forecast and efficiency.

Systemic lupus erythematosus. Definition. Etiological factors and pathogenesis. Classification. Clinical manifestations depending on the damage to organs and systems and disease activity. The value of laboratory,

including immunological, research methods. Diagnostic criteria. Differential diagnosis. Complication. Principles of treatment taking into account the degree of activity. Pulse therapy. Prevention. Forecast and efficiency.

Topic 30. Systemic connective tissue diseases (systemic scleroderma, dermatomyositis). Systemic vasculitis (seminar). Systemic connective tissue diseases (systemic scleroderma, deratomomyositis). Systemic vasculitis (seminar).

Definition. Etiological factors and pathogenesis. Classification. Clinical manifestations depending on the damage to organs and systems and disease activity. The value of laboratory, including immunological, research methods. Diagnostic criteria. Differential diagnosis. Complication. Principles of treatment taking into account the degree of activity. Pulse therapy. Prevention . Forecast and efficiency.

Topic 3. Rheumatoid arthritis. Definition. Etiology, pathogenesis. The role of immune status disorders in the development of the disease. Classification. Clinical picture taking into account the activity of the pathological process, the stage of the disease, systemic manifestations. The value of laboratory and instrumental methods for the diagnosis of the disease, its stage and activity. Criteria for diagnosis, the importance of the study of synovial fluid. Differential diagnosis. Complication. Treatment strategy. Basic therapy. Tactics of treatment with glucocorticoids and nonsteroidal anti-inflammatory drugs. Application of methods of efferent and physiotherapy, exercise therapy. Prevention. Forecast and efficiency.

Topic 4. Osteoarthritis. Definition. Etiology, pathogenesis. Classification. Clinical picture depending on the predominant location of lesions. Diagnosis. Differential diagnosis. Drug and non-drug treatment. Primary and secondary prevention . Forecast and efficiency.

Topic 5. Gout. Definition. Etiology, pathogenesis. Classification. Features of the joint syndrome and lesions of internal organs. Criteria for diagnosis. Differential diagnosis. Complication. Drug and non-drug treatment. Prevention. Forecast and efficiency.

Topic 6. Seronegative spondyloarthropathy (ankylosing spondylitis, reactive arthritis).

Ankylosing spondylitis. Definition. Etiology, pathogenesis. Classification. Clinical picture. The value of instrumental and laboratory methods. Criteria for diagnosis. Differential diagnosis. Drug and non-drug treatment. Prevention. Forecast and efficiency.

Reactive arthritis . Definition. Etiology, pathogenesis. Classification. Clinical manifestations of reactive arthritis of various etiologies. Reuters syndrome, the importance of laboratory and instrumental methods of diagnosis. Diagnostic criteria, Differential diagnosis. Treatment, the role of antibacterial therapy. Primary and secondary prevention. Forecast and efficiency.

SECTION 7– CARDIOLOGY

Fundamentals of diagnosis, treatment and prevention of major diseases of the cardiovascular system

Specific goals

Students must be able to:

- Conduct surveys and physical examinations of patients with diseases of the cardiovascular system.
- To determine the etiological and pathogenetic factors of the main diseases of the cardiovascular system.
- Identify a typical clinical picture of major diseases of the cardiovascular system.
- Identify the main options for the course and complications of major diseases of the cardiovascular system.
- Formulate a preliminary diagnosis of major diseases of the circulatory system.
- Make a plan for examination of patients with diseases of the circulatory system, justify the use of basic invasive and non-invasive diagnostic methods and determine the indications and contraindications for their implementation, possible complications.
- Based on the analysis of laboratory and instrumental examination data to make a differential diagnosis, justify and formulate a diagnosis of major circulatory diseases.
- Prescribe treatment, carry out primary and secondary prevention of major diseases of the circulatory system.
- Assess the prognosis and performance in major diseases of the circulatory system .

• Diagnose and provide care for acute heart failure, severe exacerbation of myocardial infarction.

• Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination.

Topic 1. Essential hypertension. Definition. The importance of smoking, environmental, occupational factors and infection in the development of primary hypertension . Classification. Clinical manifestations, data of laboratory and instrumental research methods depending on the stage (severity). Differential diagnosis. Complication. Treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 2. Symptomatic hypertension Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

Topic 3. Pharmacotherapy for hypertension . Principles of treatment of hypertension and symptomatic hypertension. Classification of antihypertensive drugs. Rationale for the choice of drug depending on the stage and degree of hypertension and the type of hemodynamics. Characteristics of first and second line drugs. Dose regimen. Comparative characteristics of drugs in terms of effectiveness, compatibility of drugs in different variants of the course and the presence of concomitant pathology. The choice of drug and dosage regimen depending on age, pregnancy. Evaluation of the effectiveness and safety of the application. Principles of treatment of hypertensive crises. Etiopathogenetic principles of treatment of arterial hypotension. Classification of hypertensive drugs. Comparative characteristics of drugs, choice of drugs and dosage regimen. Evaluation of the effectiveness and safety of use.

Topic 4. Chronic forms of coronary heart disease.

Definition. Etiological factors. Classification. Clinical manifestations, data of laboratory and instrumental research methods. Differential diagnosis. Complication. Indications for paracentesis of puncture and drainage of the abdominal cavity. Treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 5. Acute coronary syndrome (unstable angina, acute myocardial infarction).

Definition. Factors that contribute to the development of acute coronary syndrome. Clinical manifestations, data of laboratory and instrumental research methods. Differential diagnosis. Complication. Treatment. Indications for surgical treatment. Primary and secondary prevention. Forecast and efficiency.

Topic 6. Congenital heart disease in adults.

Definition. Classification. Causes. Features of the clinical course of different forms. Diagnosis, study of heart function, arterial and venous blood gases, indicators of acid-base status of blood. Differential diagnosis. Therapeutic tactics. Primary and secondary prevention. Forecast and efficiency.

Topic 7. Acquired heart defects (seminar)

Definition. Classification. Causes. Features of the clinical course of different forms. Diagnosis, study of heart function, arterial and venous blood gases, indicators of acid-base status of blood. Differential diagnosis. Therapeutic tactics. Primary and secondary prevention . Forecast and efficiency.

Topic 8. Infectious endocarditis (seminar)

Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

Topic 9. Pericarditis.

Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

Topic 10. Myocarditis and cardiomyopathy.

Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

Topic 11. Pulmonary heart. Pulmonary artery thromboembolism.

Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

Topic 12. Heart rhythm disorders

Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

Topic 13. Impaired conduction of the heart.

Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

Topic 14. Acute heart failure.

Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

Topic 15. Chronic heart failure.

Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

6 course (11-12 semester)

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

SECTIONS:

1. Management of patients with the main symptoms and syndromes in the cardiac clinic (55 /2,5).
2. Management of patients with the main symptoms and syndromes in the rheumatology clinic (23/ 0.5).
3. Management of patients with the main symptoms and syndromes in the gastroenterological clinic (29 / 1,0).
4. Management of patients with the main symptoms and syndromes in the pulmonology and allergology clinic (43/1,0).

BLOCK 2. EMERGENCY CONDITIONS IN THERAPY

SECTIONS:

5. Management of patients with the main symptoms and syndromes in the endocrinology clinic (18/0.8).
6. Management of patients with the main symptoms and syndromes in the nephrology clinic (31/1,0).
7. Management of patients with the main symptoms and syndromes in the hematology clinic (32/1,0).
8. Emergencies in cardiorheumatology (30/ 1,0).
9. Emergencies in pulmonology and allergology (6/ 0.2).
10. Emergencies in gastroenterology and nephrology (12 / 0.5).
11. Emergencies in endocrinology and hematology (21 / 0.5).

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 prognostic-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, renoparenchymatous); 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 that

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 pain in the chest **,** which arose acutely: 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, fibrillation and atrial fibrillation. 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, tendovaginitis; fatty, orthostatic, idiopathic and neopathic and nephropathic and diseases of the cardiovascular system 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, endocrine diseases, in particular hypothyroidism and edema, diarrheal, caused by drugs. 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 the main diseases accompanied by edema syndrome Primary and secondary prevention Prognosis and efficiency.

Topic 8. Management of a patient with pulmonary hypertension.

The main diseases and conditions accompanied by pulmonary hypertension: idiopathic, hereditary, associated with drugs 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 murmur 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 prognostic-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 in enterocolitis), osteochondrosis of the spine, osteoporosis, dermatomyositis / polymyositis, neuropathies of various genesis, in particular, vasculitis and diabetes mellitus. 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 that are 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.

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 surveys 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 13. 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 14. 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 15. 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 16. Management of a patient with diarrhea.

The main diseases and conditions 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, food intolerance, Whipple's disease, nonspecific ulcerative colitis, nonspecific ulcerative colitis. 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 17. 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 18. Management of a patient with **jaundice.**

The main 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 19. 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 20. 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 diagnostic method used in pulmonology.

- Evaluate the results of the main instrumental and laboratory methods of diagnosis 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 21. Management of a patient with pulmonary infiltrate

The main diseases and conditions accompanied by pulmonary infiltration:

pneumonia, infiltrative pulmonary tuberculosis, eosinophilic pulmonary infiltrate, pulmonary infarction, lung cancer, benign lung tumors, sarcoidosis of the lungs, 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 22. 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 23. 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 bronchoobstructive syndrome. Primary and secondary prevention. Forecast and efficiency.

Topic 24. 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 25. 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 26. 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 THE 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, carry out 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 27. 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 28. 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 29. Management of a patient with metabolic syndrome.

Classification, criteria of diagnostics and differential diagnostics. Drawing up of the plan of inspection, a role of instrumental and laboratory methods of inspection. 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 BASIC SYMPTOMS AND SYNDROMES 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 a 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, carry out 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 30. 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, hypernephroma, hemorrhagic vasculitis. 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 31. 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 32. 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 33. 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 34. Management of a patient with purpura.

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 35. 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 36. 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. 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 37. Emergency care in 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 38. Emergency care for acute chest pain.

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 39. Emergency care for 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 40. Emergency care for 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 41. Emergency care for patients 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.

Topic 42. Emergency care for patients with Management of severe community-acquired and community-acquired 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 43. Emergency care for patients 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.

TABLE OF CONTENTS SECTION 10

"EMERGENCIES 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

"EMERGENCY STATES 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 a 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

4th year

" INTERNAL MEDICINE, INCLUDING MEDICAL GENETICS, ENDOCRINOLOGY"

Names of sections of the discipline and topics	Number of hours				
	Full-time				
	Total	Including			
		L	P	Ind.	ISW
1	2	3	4	5	6
Block 1. Diseases of the digestive system and respiratory system.					
Contents 1. Basics of diagnosis, treatment and prevention of major diseases of the digestive system					
Topic 1. Gastroesophageal reflux disease	5	1	2		2
Topic 2. Dyspepsia. Chronic gastritis	5	1	2		2
Topic 3. Peptic ulcer of the stomach and duodenum	8	2	4		2
Topic 4. Celiac disease and other enteropathies	4		2		2
Topic 5. Inflammatory bowel disease. Irritable bowel syndrome	9	1	4		4

Topic 6. Gallstone disease, chronic cholecystitis and functional biliary disorders	13	2	4		7
Topic 7. Chronic hepatitis	7	1	4		2
Topic 8. Cirrhosis of the liver	7	1	4		2
Topic 9. Chronic pancreatitis	6	2	2		2
Together under section 2 hours-64 Credits ECTS -2,0	**64**	**11**	**28**		**25**
Content section 2. Basics of diagnosis, treatment and prevention of major respiratory diseases					
Topic 1. Chronic obstructive pulmonary disease	9	1	4		4
Topic 2. Bronchial asthma	9	1	4		4
Topic 3. Pneumonia	9	1	4		4
Topic 4. Pleurisy	7	1	2		4
Topic 5. Infectious and destructive lung diseases	6		2		4
Topic 6. D ihal insufficiency	6		1		5
Together under section 2 hours - 46 K credits E CTS - 2.0	**46**	**4**	**17**		**25**
Together on the content block 1.	**110 / 40**	**15**	**45**		**50**
Block 2. Endocrine and hematological pathology, general issues of cardiology, medical genetics					
Content section 3. Basics of diagnosis, treatment and prevention of major endocrine diseases					
Topic 1. Diabetes mellitus, classification, etiology, pathogenesis, clinic, diagnosis	6	1	4		1
Topic 2. Acute and chronic complications of diabetes. Features of the course and treatment of diabetes mellitus in surgical patients during pregnancy	6	1	4		1
Topic 3. Type 1 and type 2 diabetes, modern methods of therapy	9	2	6		1
Topic 4. Iodine deficiency diseases of the thyroid gland. Signs of endemic terrain according to the WHO. Clinic, diagnosis, prevention and treatment. Hypothyroidism and thyroiditis. Classification, diagnosis, clinic, treatment	6	1	4		1
Topic 5. Thyrotoxicosis. Clinical forms. Diagnosis, treatment. Thyroid cancer. Classification, clinic, diagnosis, treatment. Diseases of the parathyroid glands	6	1	4		1
Topic 6. Diseases of the adrenal glands. Chronic insufficiency of the adrenal cortex. Etiology, pathogenesis, clinic, diagnosis, prevention and treatment. Hormonally active tumors of the adrenal glands	6	2	4		
Topic 7. Diseases of the hypothalamic-pituitary system. Adiposity. Diseases of the gonads	6	2	4		
Together under section 1 hours-45 ECTS credits -1.0	**45**	**10**	**30**		**5**
Content section 4. Basics of diagnosis, treatment and prevention of major diseases of the blood and blood-forming organs					
Topic 1. Hemophilia and thrombocytopenic purpura	5		4		1
Topic 2. Anemia	8	2	4		2
Topic 3. Acute leukemia	4	1	2		1
Topic 4. Chronic leukemias	4	1	2		1
Total for the section 4 hours - 21	**21**	**4**	**1 2**		**5**

K ECTS credits -1.0					
Content section 5. General issues of internal medicine					
Topic 1. Principles of evidence-based medicine . The role of evidence-based medicine in modern clinical practice.	7	2	4		1
Topic 2. Diagnosis and treatment of diseases of the internal organs in the elderly	6	2	2		2
Topic 3. Obesity and its consequences	4		2		2
Together under section 5 hours-17 Credits ECTS -1,0	**17**	**4**	**8**		**5**
Semantic section 6. Medical genetics					
Topic 1. The subject and objectives of medical genetics. The role of heredity in human pathology. Clinical and genealogical method. Cytogenetic and molecular genetic methods. Biochemical methods. Morphogenetic variants of development. Developmental defects.	14	2	2		1 0
Topic 2. General characteristics of monogenic pathology. Clinic and genetics of some forms of monogenic diseases. Hereditary metabolic diseases. Principles of treatment of hereditary diseases, rehabilitation and social adaptation.	14	-	4		1 0
Topic 3. General characteristics of chromosomal diseases. Clinic of the main forms of chromosomal diseases. Levels and ways of prevention of hereditary diseases.	12	-	2		1 0
Topic 4. Medical and genetic counseling. Prenatal diagnosis. Screening programs.	7	-	2		5
Together under section 6 hours-47 Credits ECTS -1,0	**47**	**2**	**10**		**35**
TOTAL BLOCK 2 ECTS-4.0 LOANS	**130**	**20**	**60**		**50**
TOTAL HOURS IN THE ECTS-8.0 CREDIT DISCIPLINE	**240**	**35**	**105**		**100**

STRUCTURE OF THE COURSE

5th year

"INTERNAL MEDICINE, INCLUDING CLINICAL PHARMACOLOGY, CLINICAL IMMUNOLOGY AND ALLERGOLOGY, OCCUPATIONAL DISEASES"

№	Topic	Lectures	Practical classes	Independent work

s / n					
				CPC	**Individual work**
BLOCK 1. CURRENT ISSUES OF CLINICAL PHARMACOLOGY, MILITARY THERAPY, OCCUPATIONAL DISEASES, CLINICAL IMMUNOLOGY, ALLERGOLOGY **Section 1** – *Current issues of clinical pharmacology*					
1.	Topic 1. Subject, tasks of clinical pharmacology. Clinical pharmacokinetics, pharmacodynamics of drugs.	0	2	0	
2.	Topic 2. Clinical and pharmacological characteristics of antihypertensive and hypertensive drugs.	0	2	0	• Report at clinical conferences of the bases of the department • Report of the abstract in a practical lesson. • Report of the patient's medical history in a practical lesson. Writing abstracts, articles.
3.	Topic 3. Clinical and pharmacological characteristics of antianginal, antiischemic and hypolipidemic drugs.	0	2	0	
4.	Topic 4. Clinical pharmacology of drugs that affect the ability of blood to coagulate. Clinical and pharmacological characteristics of cardiac glycosides and non-glycoside positive inotropic drugs, antiarrhythmic drugs.	0	2	0	
5.	Topic 5. Clinical and pharmacological characteristics of anti-inflammatory drugs (nonsteroidal and steroidal).	0	2	0	
6.	Topic 6. Clinical and pharmacological characteristics of antibacterial drugs.	0	4	0	
7.	Topic 7. Clinical and pharmacological characteristics of drugs that affect bronchial patency. Clinical pharmacology of antiallergic drugs. Clinical pharmacology of psychotropic drugs.	0	2	0	
8.	Topic 8. Clinical and pharmacological characteristics of drugs that affect the functions of the gastrointestinal tract, hepatobiliary system and pancreas. Interaction of drugs, features of pharmacotherapy in children and old age. Preparation and writing of the Protocol of drug pharmacodynamics research ".	0	2	0	
9.	Topic 9. Final control from the section of clinical pharmacology	0	2	0	
	Total hours – 20	**0**	**20**	**0**	
	ECTS credits – 1.0				

Section 2 - *Current issues of military therapy*					
10.	Topic 10. Organization of therapeutic care in wartime and in emergencies in peacetime.	2	2	2	• Report at clinical conferences of the bases of the department • Report of the abstract in a practical lesson. • Report of the patient's medical history in a practical lesson. • Writing abstracts, articles.
11.	Topic 11. Radiation damage. The concept of radiation injury, medical care at the stages of medical evacuation. Acute radiation sickness Atypical forms of radiation sickness. Stage treatment of patients with acute radiation sickness.		2	4	
12.	Topic 12. Diseases of the internal organs in combat surgical trauma and injuries in disasters and accidents in peacetime.		2	2	
13.	Topic 13. Burn disease. Diseases caused by exposure to thermal factors (heat and cold). Prolonged compression syndrome.	0	2	2	
14.	Topic 14. Emergencies, providing therapeutic care in life-threatening conditions at the stages of medical evacuation. Combat mental trauma.	0	1	4	
15.	Topic 15. Defeat by poisonous substances in wartime and peace	0	1	3	
	Total hours - 29	**2**	**10**	**17**	
	ECTS credits - 1, 0				
Section 3 - *Occupational diseases in therapeutic practice*					
	Features of diagnostics of occupational diseases				
16.	Topic 16. General issues of occupational pathology	1	2	1	
	Occupational diseases caused by dust aerosols				
17.	Topic 17. Pneumoconiosis		2	1	
	Occupational toxic substances				
18.	Topic 18. Occupational intoxication with benzene, amino and nitro compounds of benzene.	1	1	1	• Report at clinical conferences of the bases of the department
19.	Topic 19. Occupational neurotoxicosis. Occupational intoxications used in agricultural work.		1	1	
	Diseases caused by physical factors and overexertion of certain organs and systems				
20.	Topic 20. Vibration disease and neurosensory depression. Altitude and caisson diseases.		1	1	• Report at clinical conferences of the
21.	Topic 21. Occupational diseases caused by		0	1	

	electromagnetic radiation and ultrasound, the action of adverse factors of the industrial microclimate.				bases of the department
22.	Topic 22. Occupational diseases associated with overexertion of individual organs and systems.	0	1	2	• Report of the abstract in a practical lesson.
	Total hours - 18	**2**	**8**	**8**	
	ECTS credits - 0 , 5				
	Section 4 - *Current issues of clinical immunology and allergology*				
	Immune status, principles of assessment and ways of correction				
23.	Topic №23. Structure and principles of functioning of the immune system.	0	1	5	• Report of the abstract in a practical lesson.
24.	Topic №24. Immunological research methods. Basic rules for assessing immune status	0	1	5	
	Immunodeficiency diseases and immune-dependent pathology				
25.	Topic № 25. Diseases of the immune system. Immunodeficiency diseases. Principles of immunodiagnostics, immunotherapy, immunorehabilitation and immunoprophylaxis.	0	2	5	• Report at conferences
26.	Topic №26. Immune aspects autoimmune pathology	0	2	0	
	Allergic diseases				
27.	Topic №27. Atopic diseases	0	1	0	• Writing abstracts for conferences
28.	Topic №28. Allergic (non-atopic) disease	2	1	0	
	Total hours - 25	**2**	**8**	**15**	
	Credits - 1.0				
	Section 5- *Current issues of nephrology*				
29	Topic 29. The main clinical and laboratory syndromes in kidney disease	2	2	2	• Report at clinical conferences of the bases of the department
30	Topic 30. Instrumental methods of diagnosis in nephrology	0	2	2	
31	Topic 31. Glomerulonephritis and nephrotic	0	2	2	

	syndrome. Renal amyloidosis				
32	Topic 32. Pyelonephritis. Tubulostitial nephritis	0	2	2	• Report of the abstract in a practical lesson. •
33	Topic 33. Acute kidney damage. Acute renal failure	0	1	0	
34	Topic 34. Chronic kidney disease. Chronic renal failure. Hemodialysis (indications and contraindications)	0	1	2	
	Total hours - 22 **ECTS credits -0.5**	**2**	**10**	**10**	
	TOTAL BLOCK 1 year. - 114 ***LOANS - 4.0***	**8**	**56**	**50**	
	BLOCK 2. FUNDAMENTALS OF DIAGNOSIS, TREATMENT AND PREVENTION OF PATHOLOGY OF INTERNAL ORGANS **Section 6 -** *Current issues of rheumatology*				
1	Topic 1. Acute rheumatic fever. Systemic connective tissue diseases (systemic lupus erythematosus).	2	4	6	• Report at clinical conferences of the bases of the department • Report of the abstract in a practical lesson. • Report of the patient's medical history in a practical lesson. • Writing abstracts, articles.
2	Topic 2. Systemic connective tissue diseases (systemic scleroderma, dermatomyositis). Systemic vasculitis (seminar). Systemic connective tissue diseases (systemic scleroderma, deratomomyositis). Systemic vasculitis (seminar).	2	4	7	
3	Topic 3. Rheumatoid arthritis.	0	4	8	
4	Topic 4. Osteoarthritis	0	2	3	
5	Topic 5. Gout	0	2	1	Report of the patient's medical history in a practical lesson
6	Topic 6. Seronegative spondyloarthropathy		4		Writing abstracts, articles

	Total hours - 49				
		4	**20**	**25**	
	ECTS credits -2.0				
Section 7 - *Basics of diagnosis, treatment and prevention of diseases of the cardiovascular system*					
1	Essential hypertension	1	4	4	• Report at clinical conferences of the bases of the department
2	Symptomatic hypertension	1	4	1	
3	Pharmacotherapy for hypertension	0	4	1	
4	Chronic forms of coronary heart disease .	1	4	1	• Report of the abstract in a practical lesson.
5	Acute coronary syndrome (unstable angina, acute myocardial infarction).	1	4	1	
6	Congenital heart disease in adults.	0	4	2	
7	Acquired heart defects (seminar)	0	4	1	
8	Infectious endocarditis (seminar)	0	4	1	• Report of the patient's medical history in a practical lesson.
9	Pericarditis.	0	4	2	
10	Myocarditis and cardiomyopathy.	0	4		
11	Pulmonary heart. Pulmonary artery thromboembolism.	0	4	2	
12	Heart rhythm disorders	2	4	2	
13	Impaired conduction of the heart.	0	4	2	
14	Acute heart failure.	0	4	3	• Writing abstracts, articles.
15	Chronic heart failure	0	4	3	

	Total hours - 92				
		6	**60**	**26**	
	Credits ECTS - 2.5				

TOTAL HOURS FROM THE BLOCK 2– 141 hours (l-10, p-80, isw-51)
ECTS CREDITS -4.5
TOTAL OF THE DISCIPLINE - 255 hours. (l-18, p-136, isw-101)
ECTS CREDITS - 8.5

STRUCTURE OF THE COURSE
6th year
"INTERNAL MEDICINE"

№ s / n	**Topic**	**Lectures**	**Seminars**	**Practice.**	**Individual work**	
					CPC	**Individual work**
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			4	5	• Report abstract in a practical lesson • Report at clinical conferences of departments • Report on the history of the disease in practice
2	Management of a patient with chronic (recurrent) chest pain			4	3	
3	Management of a patient with acute chest pain			6		
3	Management of a patient with cardiac arrhythmia			4	2	
4	Management of a patient with impaired conduction			4	1	
5	Management of a patient with shortness of breath			4	1	
6	Management of a patient with edema syndrome			4		
7	Management of a patient with pulmonary hypertension			4		
8	Management of a patient with heart murmur			4		Writing abstracts, articles

9	Management of a patient with chronic heart failure			4		
	Independent / individual work				**12**	**1**
	Total hours - 55			**42**	**13**	
	ECTS credits - 2.5					
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	8	• Report abstract in a practical lesson • Report at clinical conferences of departments • Report on the history of the disease in practice • Writing abstracts, articles
12	Management of a patient with joint syndrome			4	4	
	Independent / individual work				**12**	**1**
	Total hours - 23			**10**	**13**	
	ECTS credits - 0.5					
Semantic section 3. Management of patients with the main symptoms and syndromes in the gastroenterological clinic						
13	Management of a patient with dysphagia and heartburn			2	2	• Report abstract in a practical lesson • Report at clinical conferences of departments • Report on the history of the disease in practice • Writing abstracts, articles
14	Management of a patient with dyspepsia			2	2	
15	Management of a patient with abdominal pain			2	2	
16	Management of a patient with diarrhea			2	2	
17	Management of a patient with constipation			2	2	

18	Management of a patient with jaundice			2		
1 9	Management of a patient with hepatomegaly and hepatolienal syndrome			2	2	
20	Management of a patient with portal hypertension and ascites			2		
	Independent / individual work				**12**	1

	Total hours - 29			**16**	**13**	
	ECTS credits - 1.0					
Semantic section 3. Management of patients with the main symptoms syndromes in of bullets in a monologue and allergy clinic						
21	Management of the patient with pulmonary infiltrate			2	3	• Report of the abstract to the practical lesson • Report to clinical conferences of departments • Report the disease to a practical lesson Writing articles
22	Management of a patient with a chronic cough			2	4	
23	Management of a patient with bronchoobstructive syndrome			2	3	
24	Management of a patient with cyanosis			2	1	
25	Management of a patient with hemoptysis			2	10	
2 6	Management of a patient with pleural effusion			2	9	
	Independent / individual work				**30**	1
	Total hours - 43			**12**	**31**	
	ECTS credits - 1.0				**70**	
	TOTAL BLOCK 1, hours - 150 **ECTS CREDITS - 5.0**			**80**		

BLOCK 2. EMERGENCY CONDITIONS IN THERAPY						
ıent of patients with the main symptoms of the endocrinology clinic and syndromes in						
24	Management of a patient with chronic complications of diabetes mellitus			6	3	• Report of the abstract to the practical lesson on • Report to clinical conferences of departments on • Reporting the disease to a practical lesson • Writing articles Stories on thesis,
25	Management of a patient with goiter syndrome			4		
26	Management of a patient with metabolic syndrome			4		
	Independent / individual work				**3**	**1**
	Total hours - 18			**14**	**4**	

	ECTS credits - 0.8					
Contents Section 6. Management of patients with the main symptoms and syndromes in the nephrology clinic						
27	Management of a patient with urinary syndrome			8	3	• Report abstract in a practical lesson • Report at clinical conferences of departments • Report on the history of the disease in practice • Writing abstracts, articles
28	Management of a patient with edema syndrome			8	3	
29	Management of a patient with chronic renal failure			8		
	Independent / individual work				**6**	**1**
	Total hours - 31			**24**	**7**	
	Credits ECTS - 1,0					
Contents Section 7: Management of patients with the main symptoms and syndromes in the hematology clinic						
31	Management of a patient with anemia			12		• Report

32	Management of a patient with purpura			6		abstract in a practical lesson • Report at clinical conferences of departments • Report on the history of the disease in practice • Writing abstracts, articles
33	Management of a patient with lymphadenopathy			6		
34	Management of a patient with leukocytosis and leukopenia			6		
	Independent / individual work					
	Total hours - 32			**30**	**2**	
	ECTS credits - 1.0					
Content section 8: "Emergencies in cardiorheumatology"						
35	Emergency care for complicated hypertension			2	3	• Report abstract in a practical lesson • Report on clinical
36	Emergency care in case of acute chest pain			6	4	

37	. Emergency care for pulmonary embolism.			6	3	conferences of departments • Report on the history of the disease in practice
38	Emergency care for heart rhythm disorders			2	3	• Writing abstracts, articles
	Independent / individual work				**13**	**1**
	Total hours - 30			**16**	**14**	
	ECTS credits - 1.0					
Content section 9: "Emergencies in pulmonology and allergology"						
39	Emergency care for anaphylactic shock and Quincke's edema.			2		• Report abstract in a practical lesson • Report at clinical conferences of
40	Emergency care for severe pneumonia and pleural effusion			2		

41	Emergency care for asthmatic status			2		departments • Report on the history of the disease in practice • Writing abstracts, articles
	Independent / individual work					
	Total hours - 6			**6**	**0**	
	ECTS credits - 0.2					
Contents section 10. "Emergencies in gastroenterology and nephrology"						
42	Management of a patient with acute liver failure.			2		• Report 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		
44	Management of a patient with acute abdominal pain. Management of a patient with gastrointestinal bleeding			4		
45	Emergencies in the military therapy clinic.			2		
	Independent / individual work					
	Total hours -12			**12**	**0**	
	ECTS credits - 0.5					
Content section 11: "Emergencies in endocrinology and hematology"						
46	Management of a patient with hypoglycemic coma. Management of a patient with hyperglycemic (ketoacidemic) coma.			4	2	• Report abstract in a practical lesson • Report at clinical conferences of departments • Report on the history of
47	Keeping the patient with thyrotoxic crisis. Keeping a patient with acute adrenal insufficiency			4	5	

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. Emergency care for incrabious patients			4		the disease in practice • Writing abstracts, articles
	Independent / individual work				**8**	**1**
	Total hours - 21			**12**	**9**	
	ECT S credits - 0.5				**36**	
	TOTAL BLOCK 2 - 150 **Credits block 2 - 6.0**			**114**		
	Together with the discipline Hours - 300 **ECTS credits - 10.0**			**194**	**106**	

4. The content of the discipline

4.1. THEMATIC PLAN OF LECTURES

4th year

BLOCK 1 . Diseases of the digestive and respiratory systems.		
№з / п	Name topics	Number of hours
1.	Gastroesophageal reflux disease. Dyspepsia and chronic gastritis	2
2.	Peptic ulcer of the stomach and duodenum.	2
3.	Inflammatory bowel disease. Irritable bowel syndrome	1
4.	Gallstone disease, chronic cholecystitis and functional disorders of the biliary tract	2
5 .	Chronic hepatitis. Cirrhosis of the liver	2
6 .	Chronic pancreatitis	2
7 .	Chronic obstructive pulmonary disease. Bronchial asthma	2
8 .	Pneumonia and pleural diseases	2
TOTAL LECTURES OF BLOCK 1		**15**

BLOCK 2. Endocrine and hematological pathology, general issues of cardiology, medical genetics general issues of cardiology, medical genetics		
1 .	Diabetes mellitus: modern classification, etiology, pathogenesis, clinic, diagnosis. Complications of diabetes	2
2	The latest methods of treatment of patients with diabetes. Oral hypoglycemic drugs, modern insulin preparations and its analogues.	2
3 .	Diseases of the thyroid and parathyroid glands. Iodine deficiency conditions. Hypothyroidism and thyrotoxicosis: clinic, classification, diagnosis, treatment. Thyroid cancer.	2
4 .	Diseases of the adrenal glands. Chronic adrenal insufficiency iron. Hormonally active tumors.	2
5 .	Diseases of the hypothalamic-pituitary system and gonads. Adiposity.	2
6 .	Anemia	2
7 .	Acute and chronic leukemias	2
8 .	Principles of evidence-based medicine . The role of evidence-based medicine in modern clinical practice.	2
9 .	Diagnosis and treatment of diseases of internal organs in the elderly	2
10.	Subject and tasks of medical genetics. The role of heredity in human pathology. Clinical and genealogical method. Cytogenetic and molecular genetic methods. Biochemical methods.	2
TOTAL LECTURES OF BLOCK 2		**20**

TOTAL LECTURES FOR TWO BLOCKS: 40 hours

THEMATIC PLAN OF LECTURES

5th year

BLOCK 1. CURRENT ISSUES OF CLINICAL PHARMACOLOGY, MILITARY THERAPY, OCCUPATIONAL DISEASES, CLINICAL IMMUNOLOGY, ALLERGOLOGY OF TECHNOLOGY

Section 2

Current issues of military therapy

№ s / n	**Topic**	**Number of hours**
1.	Organization of therapeutic care in wartime and in peacetime emergencies.	2
TOGETHER		**2**

Section 3

Occupational diseases in therapeutic practice

№	Topic	Kiel - bone hours
2.	General issues of occupational pathology Pneumoconiosis . Occupational neurotoxicosis . Occupational benzene intoxication. Occupational intoxication with compounds used in agricultural work	2
	Together	**2**

Section 4

Current issues of clinical immunology and allergology

№ p / p	Topic	Number of hours
3.	Allergic diseases. Classification, diagnosis and treatment, clinical examples.	2
Total		**2**

Section 5.

Current issues of nephrology

№ s / n	Topic	Number of hours
4.	The main clinical and laboratory syndromes in kidney disease	2
TOGETHER		**2**

TOTAL LECTURES FROM BLOCK 1: 8 o'clock.

BLOCK 2. FUNDAMENTALS OF DIAGNOSIS, TREATMENT AND PREVENTION OF PATHOLOGY OF INTERNAL ORGANS

THEMATIC PLAN OF LECTURES

№s/n	Topic	Number of hours
1	Systemic connective tissue diseases (systemic scleroderma, dermatomyositis). Systemic vasculitis (seminar).	2
2	Rheumatoid arthritis.	2
3	Essential and symptomatic hypertension. Fundamentals of pharmacotherapy of hypertension.	2
4	Coronary heart disease. Myocardial infarction and acute coronary syndrome. Chronic heart failure	2

5	Cardiac arrhythmias and conduction	2
TOGETHER		**10**

BLOCK 2 LECTURES - 10 hours.

TOTAL LECTURES IN THE DISCIPLINE IN TWO BLOCKS: 18 hours.

4.2 . THEMATIC PLAN OF PRACTICAL CLASSES

4th year

Name topics	Count. hours
BLOCK 1. Diseases of the digestive system and respiratory system. Contents 1. Basics of diagnosis, treatment and prevention of major diseases of the digestive system	
Gastroesophageal reflux disease	2
Dyspepsia. Chronic gastritis	2
Peptic ulcer of the stomach and duodenum	4
Celiac disease and other enteropathies	2
Inflammatory bowel disease. Irritable bowel syndrome	4
Gallstone disease, chronic cholecystitis and functional biliary disorders	4
Chronic hepatitis	4
Cirrhosis of the liver	4
Chronic pancreatitis	2
Content section 2. Basics of diagnosis, treatment and prevention of major respiratory diseases	
Chronic obstructive pulmonary disease	4
Bronchial asthma	4
Pneumonia	4
Pleurisy	2
Infectious and destructive lung diseases	2
D ihal insufficiency	1
TOTAL BLOCK 1	**45**
BLOCK 2. Endocrine and hematological pathology, general issues of cardiology, medical genetics Contents section 3 . Fundamentals of diagnosis, treatment and prevention of major endocrine diseases	
Diabetes mellitus , classification , etiology , pathogenesis , clinic , diagnosis	4
Acute and chronic complications of diabetes. Features of the course and treatment of diabetes mellitus in surgical patients during pregnancy	4
Type 1 and type 2 diabetes, modern methods of therapy	6
Iodine deficiency diseases of the thyroid gland . Signs of endemic terrain according to the WHO . Clinic , diagnosis , prevention and treatment . Hypothyroidism and thyroiditis . Classification , diagnosis , clinic , treatment	4
Thyrotoxicosis. Clinical forms. Diagnosis, treatment. Thyroid cancer. Classification, clinic, diagnosis,	4

treatment. Diseases of the parathyroid glands	
Diseases of the adrenal glands. Chronic insufficiency of the adrenal cortex. Etiology, pathogenesis, clinic, diagnosis, prevention and treatment. Hormonally active tumors of the adrenal glands	4
Diseases of the hypothalamic - pituitary system . Obesity . Diseases of the gonads	4
Content section 4. Basics of diagnosis, treatment and prevention of major diseases of the blood and blood-forming organs	
Hemophilia and thrombocytopenic purpura	4
Anemia	4
Acute leukemia	2
Chronic leukemia	2
Content section 5. General issues of internal medicine	
Principles of evidence-based medicine . The role of evidence-based medicine in modern clinical practice.	2
Diagnosis and treatment of diseases of internal organs in the elderly	2
Obesity and its consequences	2
Semantic section 6. Medical genetics	
Subject and tasks of medical genetics. The role of heredity in human pathology. Clinical and genealogical method. Cytogenetic and molecular genetic methods. Biochemical methods. Morphogenetic variants of development. Developmental defects.	2
General characteristics of monogenic pathology. Clinic and genetics of some forms of monogenic diseases. Hereditary metabolic diseases. Principles of treatment of hereditary diseases, rehabilitation and social adaptation.	4
General characteristics of chromosomal diseases. Clinic of the main forms of chromosomal diseases. Levels and ways of prevention of hereditary diseases.	2
Medical and genetic counseling. Prenatal diagnosis. Screening programs.	2
BLOCK 2	**60**
TOGETHER	**1 05**

THEMATIC PLAN OF PRACTICAL CLASSES

5th year

BLOCK 1. CURRENT ISSUE of

clinical pharmacology , MILITARY CARE , PROFESSIONAL DISEASES , CLINICAL IMMUNOL OGY , Allergy AND NEPHROLOGY

Section 1

Current issues of clinical pharmacology

№ s/n	Topic	Number hours
1.	Subject, tasks of clinical pharmacology. Clinical pharmacokinetics, pharmacodynamics of	2

	drugs.	
2.	Clinical and pharmacological characteristics of antihypertensive and hypertensive drugs.	2
3.	Clinical and pharmacological characteristics of antianginal, antiischemic and hypolipidemic drugs.	2
4.	Clinical pharmacology of drugs that affect the ability of blood to coagulate (thrombolytics, anticoagulants, antiplatelets, coagulants). Clinical and pharmacological characteristics of cardiac glycosides and non-glycoside positive inotropic drugs, antiarrhythmic drugs.	2
5.	Clinical and pharmacological characteristics of anti-inflammatory drugs (nonsteroidal and steroidal).	2
6.	Clinical and pharmacological characteristics of antibacterial drugs.	4
7.	Clinical and pharmacological characteristics of drugs that affect bronchial patency.	2
8.	Clinical and pharmacological characteristics of drugs that affect the functions of the gastrointestinal tract, hepatobiliary system and pancreas.	2
9.	Final control in clinical pharmacology	2
	Together	**20**

Section 2

Current issues of military therapy

№ s/n	**Topic**	**Number of hours**
1	Organization of therapeutic care in wartime and in emergencies in peacetime.	2
2	Radiation damage. The concept of radiation injury, medical care at the stages of medical evacuation. Acute radiation sickness Atypical forms of radiation sickness. Stage treatment of patients with acute radiation sickness.	2
3.	Diseases of internal organs at combat surgical trauma and injuries in the conditions of catastrophes and accidents of peacetime	2
4	Burn disease. Diseases caused by exposure to thermal factors (heat and cold). Prolonged compression syndrome.	2
5	Emergencies, providing therapeutic care in life-threatening conditions at the stages of medical evacuation. Combat mental trauma. Defeat by poisonous substances in wartime and peacetime.	2
TOGETHER		**10**

Section 3

Occupational diseases in therapeutic practice

№ s/n	**Topic**	**Number of hours**
1	General issues of occupational pathology	2
2	Pneumoconiosis	2
3	Occupational neurotoxicosis Occupational intoxication with benzene, amino, nitro compounds of benzene. Occupational intoxication with compounds used in agricultural work	2
4	Vibration disease and neurosensory deafness. Altitude and caisson diseases. Occupational	2

	diseases associated with overexertion of individual organs and systems	
	Total	**8**

Section 4

Current issues of clinical immunology and allergology

№ topics	**Name topics**	**Number of hours**
1	Structure and principles of functioning of the immune system. Immunological research methods. Basic rules for assessing immune status	2
2	Congenital and acquired immunodeficiency states	2
3	Immune aspects of autoimmune pathology	2
4	Atopic and allergic diseases	2
Total		8

Section 5

Fundamentals of diagnosis, treatment and prevention of major diseases of the urinary system

№ s/n	**Topic**	**Number of hours**
1	The main clinical and laboratory syndromes in kidney disease	2
2	Instrumental diagnostic methods in nephrology	2
3	Glomerulonephritis and nephrotic syndrome. Renal amyloidosis	2
4	Pyelonephritis. Tubulointerstitial nephritis	2
5	Acute kidney damage. Acute and chronic malnutrition. Hemodialysis (indications and contraindications).	2
	TOGETHER	**10**

TOGETHER FROM BLOCK 1 PRACTICAL HOURS-56 HOURS.

BLOCK 2. FUNDAMENTALS OF DIAGNOSIS, TREATMENT AND PREVENTION OF PATHOLOGY OF INTERNAL ORGANS

Section 6

Current issues of rheumatology

№ s/n	**Topic**	**Number of hours**

1	Acute rheumatic fever. Systemic connective tissue diseases (systemic lupus erythematosus).	4
2	Systemic connective tissue diseases (systemic scleroderma, dermatomyositis). Systemic vasculitis (seminar).	4
3	Rheumatoid arthritis.	4
4	Osteoarthritis	2
5	Gout	2
6	Seronegative spondyloarthropathy (ankylosing spondylitis, active arthritis)	4
	TOGETHER	**20**

Section 7

Fundamentals of diagnosis, treatment and prevention of major diseases of the cardiovascular system

№ s / n	**Topic**	**Number of hours**
1	Essential hypertension	4
2	Symptomatic hypertension	4
3	Pharmacotherapy for hypertension	4
4	Chronic forms of coronary heart disease	4
5	Acute coronary syndrome (unstable angina, acute myocardial infarction).	4
6	Congenital heart disease in adults.	4
7	Acquired heart defects (seminar)	4
8	Infectious endocarditis (seminar)	4
9	Pericarditis.	4
10	Myocarditis and cardiomyopathy.	4
11	Pulmonary heart. Pulmonary artery thromboembolism.	4
12	Heart rhythm disorders	4

13	Impaired conduction of the heart.	4
14	Acute heart failure.	4
15	Chronic heart failure	4
TOGETHER		**60**

TOTAL PRACTICAL HOURS FROM BLOCK 2: 80 HOURS .
TOGETHER FROM THE DISCIPLINE OF PRACTICAL HOURS: 136 hours.

THEMATIC PLAN OF PRACTICAL CLASSES
6th year
BLOCK 1. MANAGEMENT OF THE PATIENTSWITH
THE MAIN SYMPTOMS AND SYNDROMES OF THE THERAPEUTIC CLINIC.

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

№ s / n	**Topic**	**Number of hours**
1	Management of a patient with hypertension	4
2	Management of a patient with chronic (recurrent) pain chest	4
3	Management of a patient with acute chest pain	6
4	Management of a patient with cardiac arrhythmias	4
5	Management of a patient with impaired cardiac conduction	4
6	Management of a patient with shortness of breath	4
7	Management of a patient with edema syndrome	4
8	Management of a patient with pulmonary hypertension	4
9	Management of a patient with heart murmur	4
10	Management of a patient with chronic heart failure	4
	Together hours	**42**

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

№ s / n	**Topic**	**Number of hours**
11	Management of a patient with back and limb pain	6
12	Management of a patient with joint syndrome	4
	Together hours	**10**

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

№ s / n	Topic	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 hours	**16**

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

№ s / n	Topic	Number of hours
21	Management of a patient with pulmonary infiltrate	2
22	Management of a patient with a chronic cough	2
23	Management of a patient with bronchoobstructive syndrome	2
24	Management of a patient with cyanosis	2
25	Management of a patient with hemoptysis	2
26	Management of a patient with pleural effusion	2
	Together hours	**12**

TOGETHER OF PRACTICAL LESSONS BLOCK 1: 80 hours

BLOCK 2. EMERGENCY CONDITIONS IN THERAPY

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

№ s / n	Topic	Number of hours
27	Management of a patient with chronic complications of diabetes mellitus	6
28	Management of a patient with goiter syndrome	4
29	Management of a patient with metabolic syndrome	4
	Together hours	**14**

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

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

№ s / n	Topic	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
	Total hours	**30**

Content sections 8-11. "Emergencies"

№	Topic	Number of hours
	Contents section 8 *Emergencies in cardiorheumatology*	
38	Emergency care for complicated hypertension	2
39	Emergency care for patients with acute chest pain	6
40	Emergency care for patients with pulmonary embolism	6
41	Emergency care for heart rhythm disorders	2
	TOGETHER	**16**
	Contents section 9 *Emergencies in pulmonology and allergology*	
42.	Emergency care for patients with anaphylactic shock, Quincke's edema	2
43	Emergency care for patients with pneumonia and pleural effusion	2
44	Emergency care for patients with asthma attacks	2
	TOGETHER	**6 years**
	Contents section 10 *Emergencies in gastroenterology and nephrology*	
45	Management of a patient with acute liver failure	2
46	Management of a patient with acute renal failure	4
47	Management of a patient with acute abdominal pain. Management of a patient with gastric bleeding.	4
48.	Emergencies in the military therapy clinic	2
	TOGETHER	**12 years**
	Contents section 11 *Emergencies in endocrinology and hematology*	
51.	Management of a patient with hypoglycemic coma. Management of a patient with hyperglycemic (ketoacidemic) coma.	4

52.	Keeping the patient with thyrotoxic crisis. Keeping a patient with acute adrenal insufficiency	4
53	Emergency care for incrabious patients	4
	TOGETHER	**12 hours .**
	TOTAL BLOCK 2	**114**
	TOGETHER FROM THE DISCIPLINE	**194**

4.3. THEMATIC PLAN OF INDEPENDENT WORK OF STUDENTS

The main types of independent work with students are:

- Pre - classroom preparation for practical classes
- Execution of individual work
- Mastering the topics that are made for independent work
- Preparation for the final control

4th COURSE

4.3 INDEPENDENT WORK PLAN

4.3. THEMATIC PLAN OF INDEPENDENT WORK OF STUDENTS

№ s / n	Topic	Number of hours
TOTAL NUMBER OF HOURS OF INDEPENDENT WORK **BLOCK 1. DISEASES OF THE DIGESTIVE OR RESPIRATORY SYSTEM**		
1	Preparation for practical classes - theoretical training and development of practical skills	20
2	Preparing and writing a medical history	10
3	Preparation for the final modular control	10
4	Individual work: • Report of the abstract in a practical lesson. • Report at clinical conferences of departments. • Report of medical history in a practical lesson • Writing abstracts, articles	10
Together with BLOCK 1		**50 years**
TOTAL NUMBER OF HOURS OF INDEPENDENT WORK **BLOCK 2 . FUNDAMENTALS OF DIAGNOSIS, TREATMENT AND PREVENTION OF PATHOLOGY OF INTERNAL ORGANS**		

1	Preparation for practical classes - theoretical training and development of practical skills	2 7
2	Preparing and writing a medical history	5
3	Preparation for the final modular control	5
4	Individual work: • Report of the abstract in a practical lesson. • Report at clinical conferences of departments. • Report of medical history in a practical lesson • Writing abstracts, articles	13
Together with BLOCK 2		**5 0 y.**

TOTAL HOURS OF THE MOST CONSTANT WORK IN THE DISCIPLINE: 1 0 0 hours.

Individual tasks

Selection and review of the scientific literature on the subject of internal medicine programs to choose from studios district and with writing the essay and its public defense.

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

Scientific lit. and INSTITUTING the subject of research department with the publication of results in scientific journals.

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

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

Approximate list of individual tasks:

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

5TH COURSE

INDEPENDENT WORK PLAN

№ s / n	Topic	Number of hours
TOTAL NUMBER OF HOURS OF INDEPENDENT WORK **BLOCK 1. CURRENT ISSUES OF CLINICAL PHARMACOLOGY, MILITARY THERAPY, OCCUPATIONAL DISEASES, CLINICAL IMMUNOLOGY, ALLERGOLOGY OF TECHNOLOGY**		
1	Preparation for practical classes - theoretical training and development of practical skills	38
2	Preparing and writing a medical history	2
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 of medical history in a practical lesson • Writing abstracts, articles	7
Together with BLOCK 1		**50 hours**
TOTAL NUMBER OF HOURS OF INDEPENDENT WORK **BLOCK 2 . FUNDAMENTALS OF DIAGNOSIS, TREATMENT AND PREVENTION OF PATHOLOGY OF INTERNAL ORGANS**		
1	Preparation for practical classes - theoretical training and development of practical skills	38
2	Preparing and writing a medical history	3
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 of medical history in a practical lesson • Writing abstracts, articles	7
Together with BLOCK 2		**51 course**

TOTAL HOURS OF INDEPENDENT WORK ON THE DISCIPLINE: 101 hours.

Individual tasks

To deepen, generalize and consolidate the knowledge that students receive in the course of training, but also the application of knowledge in practice, a compulsory individual assignment of certain criteria evaluation conducted

curation of patients with spelling and protection of educational history of the disease for profile subjects, which considered.

6th COURSE

INDEPENDENT WORK PLAN

№ s / n	Topic	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	32
2	Preparing and writing a medical history	28
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 on the history of the disease in a practical lesson • Writing abstracts, articles	7
Together with Block 1		**70 hours**

№ s / n	Topic	Number of hours
BLOCK 2. EMERGENCY CONDITIONS IN THERAPY		
1	Preparation for practical classes - theoretical training and development of practical skills	16
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 on the history of the disease in a practical lesson • Writing abstracts, articles	7
Together with Block 2		**36 hours**

Together with the discipline (hours of independent work) - 106 hours.

Individual tasks

At the request of the student while studying relevant topics it can perform individual work is carried out in an inopportune time and if successful its performance further evaluated teacher.

As individual work can be performed:

- analysis of clinical cases
- work with archival material of the clinic
- preparation of a literature review on clinical cases that have difficulties in differential diagnosis and / or treatment

- speech at a clinical medical and / or clinical and pathological conference.

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

Typical test problems to be solved in practical classes of the 4th course:

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

2. Ehrlich's notebook includes:
A. cholesterol crystals
B. amorphous lime
C. Mycobacterium tuberculosis
D. calcified elastic fibers
E. all these elements

3. Cholesterol crystals in sputum are detected when:
A. bronchitis
B. lobar pneumonia
C. bronchial asthma
D. decay of the primary tuberculosis center
E. all these diseases

4. In the sputum in acute bronchitis can be found:
A. calcified elastic fibers
B. Dietrich's plugs
C. caseous necrosis
D. groups of cylindrical ciliated epithelium
E. Mycobacterium tuberculosis

5. Hematoidin crystals in sputum are detected when:
A. bronchopneumonia
B. lung gangrene
C. bronchitis
D. bronchial asthma
E. lobar pneumonia

6. With histoplasmosis of the lungs in the sputum can be detected:
A. broad septate mycelium
B. are intracellularly gram-positive oval or round, budding cells with an unpainted area around them
C. pseudomycelium
D. chains of large disputes
E. groups of small mosaically arranged spores

7. Pneumomycosis can include:

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

8. Normally in a healthy person the number of respiratory movements per minute:
A. 10 - 12
V. 12 - 16
Pp. 16 - 20
D. 20 - 25
E. 25 - 30

9. What percussion sound over the lungs is normal:
A. Box
B. Blunt
C. Clear pulmonary
D. Blunt-tympanitis
E. Stupid

10. Hard breathing is:
A. Physiologically enhanced vesicular respiration
B. Pathologically enhanced vesicular respiration
C. Physiologically enhanced bronchial respiration
D. Pathologically enhanced bronchial respiration
E. Stenotic respiration

Typical test problems to be solved in practical classes of the 5th year:

1. A 22-year-old woman notices rapid fatigue. From early childhood 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 chest radiograph - enlargement trunk and 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

2. 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 on the skin limbs there was a small-spot hemorrhagic rash, there were cramping pains in abdominal, bloody discharge from the rectum. 2 weeks before that she suffered acute viral infection. Objectively: blood pressure 90/60 mm Hg. st., heart rate? 95 / min, abdomen on palpation tense, there are symptoms of peritoneal irritation. In the study of blood neutrophilic leukocytosis and eosinophilia, decrease in number are observed 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

3. A 50-year-old patient complains of severe weakness, dizziness, spots on the skin. Moon back ago I had a sore throat, was treated independently with antibiotics. 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 of the abdomen 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, KP 0,70, thrombocytes - 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

Typical test problems to solve at workshops 6- year student:

1. A 48-year-old patient is concerned about a sharp pain in the chest at the bottom right, hemoptysis, shortness of breath during exercise, general weakness, lethargy. History: thrombophlebitis of the lower extremities. Objectively: diffuse cyanotic skin, jugular vein edema. Respiration rate - 37 / min. Percussion sound at the bottom right is dull. Auscultatory noise of friction of a pleura is listened. Rhythmic activity of the heart, frequency 120 / minute, blood pressure 100/60 mm Hg The tones are muted. Accent II tone over the pulmonary artery. Above the base of the xiphoid process - the rhythm of the gallop. Liver + 3 cm . There is no edema. What diagnostic methods are most informative in this clinical situation?

* A. General blood test.
V. Ultrasound of the abdominal cavity.
S. ECG.
D. Acute phase indicators.
E. Transaminases.

2. An elderly patient suddenly had shortness of breath, sharp pain in the chest, dry cough, dizziness. On examination - the general condition is severe, severe inspiratory dyspnea, cyanosis of the skin. Pathological pulsation in the epigastric region is visually determined. Percussion - expansion of the right border of cardiac dullness, at auscultation - accent and bifurcation of the II tone over a pulmonary artery. What changes on the ECG are possible in this patient?

A. Left ventricular overload.
B. Deviation of the electrical axis to the left.
C. Complete AV block.
* D. Symptom QIIISI.
E. The appearance of the QS tooth.

3. A 63-year-old patient complains of intense pain in the right half of the chest, shortness of breath, hemoptysis, which occurred suddenly during exercise. The condition is serious. Diffuse cyanosis. Heart tones are muffled, the accent of the second tone over the pulmonary artery. Wet rales above the lower part of the right lung. Blood pressure - 110/90 mm Hg, ECG: the electrical axis of the heart is deflected to the right, symptom QIII, "p-pulmonale" in the II and III leads. Diagnosis?

* A. Pulmonary artery thromboembolism.
B. Acute myocardial infarction.
C. Pneumothorax.
D. Acute cholecystitis.
E. Right-sided pneumonia.

4. K., a 54-year-old man with a history of thrombophlebitis of the veins of the lower extremities, developed shortness of breath, chest pain, and then loss of consciousness. ECG: heart rate - 130 per minute, deep teeth S in I and Q in III standard leads, ST segment elevation in lead III, aVF. Which group of drugs is the most appropriate in this case?

* A. ACE inhibitors.
B. Nitrates.
C. Beta-blockers.
D. Calcium antagonists.
E. Thrombolytics.

5. A 45-year-old patient was treated for atrial fibrillation, leg vein thrombophlebitis. A few days later, there was a sudden pain in the chest, hemoptysis, short-term loss of consciousness. In the lungs - dulling of the percussion sound on the right in n / lobe, there is a small amount of wet rales. Ro-graphically on the right in n / share - a wedge-shaped shadow. ECG: blockade of the right leg of the His bundle, elevation of ST and negative T in III, aVF, V1-V3. What complication did the patient have?
* A. Heart attack-pneumonia.
B. Spleen infarction.
C. Myocardial infarction.
D. Pneumothorax.
E. Acute bronchitis.

4.4. Ensuring the educational process

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

Final control

5.1. LIST OF PRACTICAL SKILLS FOR THE FINAL CERTIFICATION IN THE 4TH YEAR

List of questions to master BLOCK № 1:

"Diseases of the digestive system and respiratory system ":

1. Gastroesophageal reflux disease. Definition. Etiology, pathogenesis. Classification. Erosive and non-erosive GERD. Clinical manifestations depending on the variant and stage. Data of laboratory and instrumental research methods. Diagnosis criteria , differential diagnosis. Complication. Differentiated therapy. Primary and secondary prevention.
2. Dyspepsia. Chronic gastritis. Determination of dyspepsia. Etiology and pathogenesis. The role of N. rulori in the occurrence of gastroduodenal pathology. Classification. Unexplored and functional dyspepsia. Criteria for diagnosis. Differential diagnosis . Modern approaches to the treatment of functional dyspepsia. Primary and secondary prevention. Forecast and efficiency.
3. Peptic ulcer of the stomach and duodenum. Definition. The main causes of peptic ulcers (H. pylori, drugs, etc.). Classification. Clinical manifestations. Complications (perforation, penetration, bleeding, stenosis, malignancy). The value of instrumental and laboratory diagnostic methods. Methods of diagnosis of Hp infection. Differential diagnosis . Tactics of patient management. Eradication therapy, control of eradication efficiency. Drug therapy of Hp-negative ulcers. Indications for surgical treatment. Primary and secondary prevention. Forecast and efficiency.
4. Celiac disease and other enteropathies. Definition. Etiology, pathogenesis. The role of intolerance to food components, immune factors and enzymopathies (lactose intolerance, fructose, galactose, etc.). Malabsorption and maldigestion syndromes. Diagnosis criteria, differential diagnosis . Complication. Differentiated therapy. Primary and secondary prevention. Forecast and efficiency.
5. Inflammatory bowel disease. Irritable bowel syndrome

Ulcerative colitis and Crohn's disease: definition, etiology and pathogenesis. Classification. Features of the clinical course depending on the degree of activity, severity and phase of the course. Laboratory and instrumental diagnostics. Diagnosis criteria, differential diagnosis.

6. Gallstone disease, chronic cholecystitis and functional disorders of the biliary tract. Definition. Etiology, pathogenesis. Significance of infection, motility disorders and dyscholia in the development of chronic cholecystitis, cholangitis and gallstone disease. Classification. Features of the clinical course. Laboratory and instrumental diagnostic methods. Differential diagnosis. Complications of gallstone disease. Treatment . Indications for surgical treatment. Primary and secondary prevention. Forecast and efficiency.

7. Chronic hepatitis. Definition. Classification. The role of persistence of the virus, toxic and medicinal agents, immune disorders and alcohol. Methods of diagnosis of viral infection. Autoimmune, toxic (drug-induced) and chronic viral hepatitis. Alcoholic liver disease. Basic clinical and biochemical syndromes. Features of the clinical course and diagnosis of individual forms. Differential diagnosis. Complication. Features of treatment of various forms. Primary and secondary prevention. Forecast and efficiency.

8. Cirrhosis of the liver. Definition. Significance of viral infection, nutritional factors, alcohol, toxic substances, genetically determined metabolic defects and immune disorders. Classification. Features of clinical manifestations and diagnosis of different options. Differential diagnosis. Liver failure and other complications. Differentiated therapy. Urgent therapy for complications. Primary and secondary prevention. Forecast and efficiency.

9. Chronic pancreatitis . Definition. Significance of various etiological factors. Classification. Features of the clinical course, diagnosis and differential diagnosis depending on the form and location of the pathological process. Complication. Research methods in the diagnosis of pancreatitis. Differentiated treatment. Primary and secondary prevention. Forecast and efficiency.

10. Chronic obstructive pulmonary disease . Definition. Importance of smoking, environmental and occupational factors, the role of exacerbations in the development and progression of chronic obstructive pulmonary disease . Classification. Clinical manifestations, data of laboratory and instrumental research methods depending on the stage and clinical course. Differential diagnosis. Complication. Treatment. Primary and secondary prevention. Forecast and efficiency.

11. Bronchial asthma. Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care . Primary and secondary prevention. Forecast and efficiency.

12. Pneumonia. Definition. Etiology. Classification. Clinical manifestations and features of the course depending on the pathogen . D or laboratory and instrumental methods. Differential diagnosis. Complications (acute respiratory distress syndrome, destruction of lung tissue, acute respiratory failure and others). Differentiated treatment. Primary and secondary prevention. Forecast and efficiency.

13. Pleurisy. Definition. Etiological factors. Classification. Clinical manifestations, data of laboratory and instrumental research methods. Differential diagnosis. Complication. Indications for pleural puncture and drainage of the pleural cavity. Treatment. Primary and secondary prevention. Forecast and efficiency.

14 . Infectious and destructive lung diseases . Definition. Factors that contribute to the development of bronchiectasis, abscess and lung gangrene. Clinical manifestations, data of laboratory and instrumental research methods. Differential diagnosis. Complication. Treatment. Indications for surgical treatment. Primary and secondary prevention. Forecast and efficiency.

15 . Respiratory failure. Definition. Classification. Causes. Features of the clinical course. Diagnosis, study of the function of external respiration, arterial and venous blood gases, indicators of acid-base status of blood. Therapeutic tactics. Primary and secondary prevention. Forecast and efficiency.

BLOCK 2. ENDOCRINE AND HEMATOLOGICAL PATHOLOGY, GENERAL ISSUES OF CARDIOLOGY, MEDICAL GENETICS

1. Diabetes mellitus, classification, etiology, pathogenesis, clinic, diagnosis. Definition of diabetes mellitus. Classification of glycemic disorders (WHO, 1999), clinical types of diabetes mellitus. Characteristics of lesions of internal organs in diabetes mellitus: cardiovascular system, hepatobiliary system, urinary organs, diabetic

osteoarthropathy. Diagnosis of diabetes. Criteria for the diagnosis of diabetes mellitus and other categories of hyperglycemia (WHO, 1999). Indications and rules for glucose tolerance test. Diagnostic value of glycated hemoglobin, fructosamine, C-peptide, glucosuria, ketonuria.

2. Type 1 and type 2 diabetes, modern methods of therapy.

Complications of insulin therapy: hypoglycemic conditions, insulin allergy, post-injection lipodystrophy, insulin resistance, chronic insulin overdose (Somogy syndrome), insulin edema. Spa treatment. Protocols for the care of patients with type 1 diabetes mellitus.

3. Acute and chronic complications of diabetes. Features of the course and treatment of diabetes mellitus in surgical patients during pregnancy.

4. Iodine deficiency diseases of the thyroid gland. Signs of endemic terrain according to the WHO. Clinic, diagnosis, prevention and treatment. Hypothyroidism and thyroiditis. Classification, diagnosis, clinic, treatment.

5. Thyrotoxicosis. Clinical forms. Diagnosis, treatment. Thyroid cancer. Classification, clinic, diagnosis, treatment. Diseases of the thyroid gland.

6. Diseases of the adrenal glands. Chronic insufficiency of the adrenal cortex. Etiology, pathogenesis, clinic, diagnosis, prevention and treatment. Hormonally active tumors of the adrenal glands.

7. Diseases of the hypothalamic-pituitary system. Adiposity. Diseases of the gonads.

Classification of hypothalamic-pituitary diseases. Acromegaly. Etiology and pathogenesis. Clinic. Diagnosis and differential diagnosis. Treatment. Itsenko-Cushing's disease. Etiology and pathogenesis. Classification. Clinic. Diagnosis and differential diagnosis. Treatment.

8. Hemophilia and thrombocytopenic purpura . Definition. Etiology and pathogenesis, main clinical syndromes. Criteria for diagnosis. Differential diagnosis. Treatment. Prevention of bleeding. Primary and secondary prevention. Forecast and efficiency.

9. Anemia (posthemorrhagic, iron deficiency, B-$_{12}$ deficiency, folate deficiency, aplastic, hemolytic). Definition. Etiological factors and pathogenesis. Mechanisms of intravascular and intracellular hemolysis. Features of clinic and laboratory diagnostics of various forms. Differential diagnosis. Complication. Treatment. Transfusion of blood components and blood substitutes. Primary and secondary prevention. Forecast and efficiency.

10. Acute leukemia. Definition. Modern views on the etiology and pathogenesis. Classification. The main clinical and hematological syndromes. Clinical manifestations. Criteria for diagnosis. Differential diagnosis. Complication. Principles of treatment. Bone marrow transplantation. Primary and secondary prevention. Forecast and efficiency.

11. Chronic leukemias. Definition of chronic myeloid leukemia, chronic lymphoid leukemia, myeloma, true polycythemia. Modern views on the etiology and pathogenesis. Classification. The main clinical manifestations and clinical and hematological syndromes. Criteria for diagnosis. Differential diagnosis. Complication. Principles of treatment. Bone marrow transplantation. Primary and secondary prevention. Forecast and efficiency.

1 2 . Principles of evidence-based medicine . Definition of the concept. The role of evidence-based medicine in modern clinical practice. Components of evidence-based medicine. Basic concepts of clinical trials. Medical and ethical aspects of evidence-based medicine.

13 . Diagnosis and treatment of diseases of the internal organs in the elderly. Features of metabolism in old age. Frequency of comorbid pathology in the elderly. Features of the effect of drugs on the body of the elderly. Features of diagnosis and treatment of diseases of internal organs in old age.

14 . Obesity and its consequences. The urgency of the problem. Methods of calculating overweight (body mass index) and determining obesity. Classification of obesity. The main medical consequences of obesity are metabolic syndrome, diabetes, cardiovascular diseases and diseases of the gastrointestinal tract. Modern approaches to medical and non-medical treatment.

15. The subject and objectives of medical genetics. The role of heredity in human pathology. Clinical and genealogical method. Cytogenetic and molecular genetic methods. Biochemical methods. Morphogenetic variants of development. Developmental defects.

16.. General characteristics of monogenic pathology. Clinic and genetics of some forms of monogenic diseases. Hereditary metabolic diseases. Principles of treatment of hereditary diseases, rehabilitation and social adaptation.

17. Hereditary lung diseases. Hereditary nephropathy. Systemic skeletal dysplasia.

Cystic fibrosis. Hypothyroidism. Vitamin D-resistant rickets. Systemic skeletal dysplasia. Hereditary cystic kidney disease. Hereditary nephropathy. Secondary nephropathy associated with hereditary metabolic diseases. Alport syndrome. Cystinuria. Glycinuria. Xanthinuria. De Tony-Debre-Fanconi syndrome. Chronic tubular acidosis. Fructose intolerance. Cystinosis. Oxalose.

18. Chromosomal diseases. Etiology and cytogenetics of chromosomal diseases. Classification of chromosomal diseases. Chromosomal aberrations and genomic mutations. Partial trisomies and monosomies. Complete and mosaic forms. Single parent disomies. Chromosomal imprinting. Age of parents and frequency of chromosomal diseases in children.

19. General characteristics of mitochondrial pathology. Classification of mitochondrial diseases. Mitochondrial heredity Mitochondrial diseases caused by mutations in mitochondrial DNA. Diseases caused by deletions of mitochondrial DNA. Diseases caused by point mutations in mitochondrial DNA. Clinic, genetics, diagnosis, therapy of Leber's syndromes, NAPR, MERRF, MELAS. Pathology associated with defects in intergenomic communication - syndromes of multiple deletions of mitochondrial DNA, mitochondrial DNA deletion syndrome. Mitochondrial diseases caused by mutations in nuclear DNA.

20. Medical and genetic counseling. Prenatal diagnosis. Screening programs.

The severity of hereditary pathology. Ethnic, geographical, social factors that cause differences in the prevalence of hereditary pathology. Genetic and demographic processes and the prevalence of hereditary diseases. Types of prevention of hereditary diseases: primary, secondary and tertiary prevention. Prevention levels: pregametic, presygotic, prenatal and postnatal.

21. Orphan diseases. The concept of orphan diseases. Register of orphan diseases. State programs for the treatment of orphan diseases. Primary immunodeficiencies, Gaucher disease, Pompe disease, Fabry disease, tyrosinemia, mucopolysaccharidosis, pulmonary arterial hypertension, bullous epidermolysis. Methods of diagnosis and treatment of organ diseases.

The list of practical skills that the student must learn when studying block 1:

1. To 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 demonstrative 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 a 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 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, determine the clinical significance of symptoms.
20. To carry out palpatory research of a spleen, to define diagnostic value of symptoms.
21. Conduct palpation and percussion examination of the kidneys, determine the diagnostic value of symptoms.
22. Determine the lower limit of the stomach, evaluate the data obtained.
23. To determine the presence of fluid in the abdominal cavity, to 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. The method of percussion 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. To carry out auscultation of lungs, to define additional respiratory noises, to 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. Analyze the ECG of a patient with impaired automaticity of the heart.
39. Analyze the ECG of a patient with impaired cardiac excitability. Carry out differential diagnosis of extrasystoles.
40. Analyze the ECG of a patient with impaired cardiac conduction.
41. Analyze the ECG of a patient with a combined violation of excitability and conduction of the heart.
42. Analyze the FCG of a patient with heart disease.

The list of practical skills that a student must learn when studying 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. To 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. Carry out 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. Conduct questioning and examination of a patient with hepatitis (or cirrhosis of the liver). 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 by 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. Conduct questioning and general examination of a patient with diabetes, examine the pulse in the vessels of the upper and lower extremities, measure blood pressure. Identify the main symptoms and syndromes.

LIST OF QUESTIONS FOR THE FINAL CONTROL IN THE 5TH YEAR

BLOCK 1. CURRENT ISSUES OF CLINICAL PHARMACOLOGY, MILITARY THERAPY, OCCUPATIONAL DISEASES, CLINICAL IMMUNOLOGY, ALLERGOLOGY OF TECHNOLOGY

NEPHROLOGY

1. Glomerulonephritis. Definition. Etiology, role of streptococcal infection and immunological disorders in the development of the disease. Pathogenesis. Classification. Clinical manifestations and diagnosis of some forms. Differential diagnosis. Complications (eclampsia, acute left ventricular failure, etc.). Treatment taking into account the morphological variant and clinical course. Primary and secondary prevention. Forecast and efficiency.
2. Amyloidosis. Definition. Etiology. Pathogenesis. Classification. Clinical manifestations of renal amyloidosis. Diagnostic criteria. Differential diagnosis. Complication. Treatment. Primary and secondary prevention. Forecast and efficiency.
3. Pyelonephritis. Definition. The role of infection in inflammatory diseases of the kidneys and urinary tract. Classification. Clinical manifestations. Instrumental and laboratory diagnostic methods. Differential diagnosis. Complication. Treatment. Primary and secondary prevention. Forecast and efficiency.
4. Tubulointerstitial nephritis. Definition. Etiology. Pathogenesis. Clinical manifestations. Diagnostic criteria and differential diagnosis. Complication. Treatment. Primary and secondary prevention. Forecast and efficiency.
5. Acute kidney damage. Chronic kidney disease. Definition. Etiological factors. Pathogenesis of lesions of organs and systems, their clinical manifestations. Classification. Clinic and changes in laboratory parameters depending on the stage. Differential diagnosis. Complication. Treatment at different stages. Renal replacement therapy: hemodialysis, kidney transplantation. Indications and contraindications to renal replacement therapy, complications. Primary and secondary prevention. Forecast and efficiency.

CLINICAL PHARMACOLOGY

1. Clinical pharmacodynamics, definition, place and role in the choice of pharmacotherapy.
2. Clinical pharmacokinetics, definitions, basic concepts, role in the choice of pharmacotherapy.
3. Classification of lipid-lowering drugs.
4. Mechanism of action, pharmacokinetics and pharmacodynamics, indications and contraindications to the appointment of statins.
5. Classification of dyslipidemias. Differentiated approach to the use of lipid-lowering drugs.
6. Groups of drugs related to antianginal and antiischemic drugs.
7. Mechanism of action, pharmacological effects, indications and contraindications to the appointment of nitrates.
8. Mechanism of action, pharmacological effects, indications and contraindications to the appointment of beta-blockers.
9. Mechanism of action, pharmacological effects, indications and contraindications to the appointment of calcium channel blockers.
10. Antiplatelet drugs. Classification. Mechanisms of action. Dosage methods.
11. Thrombolytic agents. Indications and contraindications to thrombolysis. Schemes of appointment.
12. Anticoagulants. Classification. Mechanisms of action. Side effects.

13. Principles of drug selection for the treatment of angina pectoris, acute myocardial infarction.
14. Classification of antihypertensive drugs.
15. Differentiated approach to the appointment of antihypertensive therapy in the presence of comorbidities (diabetes mellitus, bronchial asthma, pregnancy, old age, pheochromocytoma, etc.).
16. The mechanism of antihypertensive action, side effects when prescribing calcium channel blockers. Principles of dosing.
17. The mechanism of antihypertensive action, side effects when prescribing beta-blockers. Principles of dosing.
18. The mechanism of antihypertensive action, pharmacological effects, indications and contraindications, side effects when prescribing angiotensin-converting enzyme inhibitors. Principles of dosing.
19. The mechanism of antihypertensive action, pharmacological effects, indications and contraindications, side effects when prescribing angiotensin II receptor antagonists. Principles of dosing.
20. Principles of combined use of antihypertensive drugs.
21. Differentiated choice of drugs for the treatment of hypertensive crises.
22. Classification of antiarrhythmic drugs. Differentiated approach to the appointment of antiarrhythmic drugs.
23. Classification of cardiac glycosides. Principles of dosing. Cardiac and noncardiac effects of cardiac glycosides. Indications for use.
24. Clinical and ECG signs of intoxication with cardiac glycosides. Principles of treatment of cardiac glycoside intoxication.
25. Differentiated choice of drugs for the treatment of cardiac asthma, pulmonary edema.
26. Classification of diuretic drugs.
27. Mechanism of action, pharmacokinetics and pharmacodynamics, indications and contraindications to the appointment of loop diuretics.
28. Mechanism of action, pharmacokinetics and pharmacodynamics, indications and contraindications for thiazide and thiazide-like diuretics. Principles of dosing.
29. Mechanism of action and pharmacological effects of potassium-sparing diuretics. Indications and contraindications to use. Dosing mode.
30. Differentiated approach to the choice of diuretic drug depending on the presence of comorbidities (effects on lipid and carbohydrate metabolism).
31. Classification of drugs that affect bronchial patency.
32. Mechanism of action, pharmacokinetics, indications and contraindications to the appointment of short-acting and long-acting beta-2 agonists. Principles of dosing.
33. Methylxanthines, mechanism of action, pharmacological effects, side effects. Principles of dosing.
34. Glucocorticosteroids. Pharmacokinetics and pharmacodynamics. Advantages of inhaled glucocorticoids. Dosage regimens.
35. Side effects that occur with long-term use of glucocorticosteroids.
36. Mucolytic drugs. Pharmacokinetics and pharmacodynamics. Dosage regimens.
37. Interaction of drugs. See. Clinical examples.
38. Types of side effects when using drugs.
39. Clinical and pharmacological classification of nonsteroidal anti-inflammatory drugs.
40. Mechanism of action, pharmacological effects of nonsteroidal anti-inflammatory drugs.
41. Indications and contraindications. Side effects with the use of nonsteroidal anti-inflammatory drugs, their prevention and treatment.
42. Modern principles of selection of antimicrobial drugs.
43. Adverse effects of antibacterial therapy, their prevention and treatment.
44. Classification, spectrum of activity, mechanism of action, features of clinical use of penicillins. Principles of dosing.
45. Classification, spectrum of activity, mechanism of action, features of clinical use of cephalosporins. Principles of dosing.

46. Spectrum of activity, mechanism of action, features of clinical application of carbapenems. Principles of dosing.
47. Classification, spectrum of activity, mechanism of action, features of clinical use of aminoglycosides. Principles of dosing.
48. Classification, spectrum of activity, mechanism of action, features of clinical application of macrolides. Principles of dosing.
49. Classification, spectrum of activity, mechanism of action, features of clinical use of fluoroquinolones. Principles of dosing.
50. Spectrum of activity, mechanism of action, features of clinical application of glycopeptides. Principles of dosing.
51. Spectrum of activity, mechanism of action, features of clinical application of nitroimidazoles and nitrofurans. Principles of dosing.
52. Clinical and pharmacological characteristics of drugs that stimulate gastrointestinal motor function. Principles of dosing.
53. Clinical and pharmacological characteristics of drugs that inhibit the motor-evacuatory function of the gastrointestinal tract. Principles of dosing.
54. Hepatoprotectors. Classification. Pharmacokinetics and pharmacodynamics. Indications and contraindications to the appointment. Principles of dosing.
55. Choleretics and cholekinetics. Clinical and pharmacological features. Indications and contraindications to the appointment. Principles of dosing.
56. Polyenzyme replacement therapy. Pharmacological features. Indications for use. Side effects. Principles of dosing.
57. The main biological tasks and functions of the body's immune system.
58. Classification of the organs of the immune system. Apoptosis (concept and role in the functioning of the organism).
59. Organization of therapeutic care in wartime and in emergencies in peacetime. General issues of organization of therapeutic care in wartime and in emergencies in peacetime. Characteristics of modern combat therapeutic pathology . Structure and nature of sanitary losses of therapeutic profile. Principles of medical sorting of patients and victims of therapeutic profile. Types and scope of medical care for the affected and patients of therapeutic profile at the stages of medical evacuation.
60. Radiation damage. The concept of radiation injury, medical care at the stages of medical evacuation.
61. Acute radiation sickness. Stage treatment of patients with acute radiation sickness. Atypical forms of radiation sickness. Types of ionizing radiation, units of measurement and dosimetry. The main links of biological action of ionizing radiation and pathogenesis of the main clinical forms of radiation damage. Clinic and diagnosis of various forms of acute radiation sickness.
62. Features of radiation damage in peacetime. Classification of bone marrow form of acute radiation sickness. Features of the clinical picture in different periods of the disease. differential diagnostic criteria for the severity of the disease. identification of life-threatening conditions at each stage of the evacuation.
63. Principles of pathogenetic treatment of acute radiation sickness, taking into account the leading manifestations of the disease. the amount of medical care at the stages of medical evacuation. Types of atypical forms of acute radiation sickness.
64. Features of the clinic of acute radiation sickness with external uneven irradiation, combined radiation damage, internal irradiation, combined irradiation, neutron lesions and prolonged exposure to small doses. Providing medical care at the stages of medical evacuation.
65. Diseases of internal organs in combat surgical trauma and injuries in conditions of catastrophes and accidents in peacetime. Classification of pathological changes of internal organs in the wounded. General gunshot wound syndromes. Diseases of the internal organs in the wounded. Treatment of diseases of internal organs in the wounded at the stages of medical evacuation. Prevention.

66. Burn disease. Definition, pathogenesis and classification. The main clinical manifestations and complications. Diagnosis. Staged treatment of patients with burns. Features of treatment of burn shock.
67. Prolonged compression syndrome. Definition. Pathogenesis, classification, clinical manifestations. The amount of assistance at the stages of medical evacuation.
68. The concept of overheating, hypothermia. Complications from internal organs under the influence of thermal factors. Features of the clinic, diagnosis. Prevention and staged treatment.
69. Combat mental trauma and its consequences. The concept of acute reaction to combat stress and post-traumatic stress disorder. Features of the clinic, diagnosis. Emergency care in crisis situations.
70. Emergencies (acute heart failure, coma, fainting, acute respiratory failure, impaired water-electrolyte metabolism, etc.). Terminal states. Providing emergency care at the stages of medical evacuation.
71. Defeat by poisonous substances in wartime and peacetime. Classification of toxic substances. Mechanism of toxic action. Clinical manifestations of lesions of toxic substances (chlorine-containing, fluorine-containing, carbon monoxide, ammonia, cyanides, etc.). Diagnosis. Stage treatment of those affected by toxic substances. Volumes of medical care.

Questions of occupational pathology

2. Occupational pathology as a clinical discipline. Classification of occupational diseases.
4. Historical information on the development of occupational pathology.
6. Organization of occupational pathology service and structure of occupational morbidity in Ukraine.
8. Features of clinical examination and diagnosis of occupational diseases.
10. Organization and conduct of preliminary and periodic medical examinations of employees.
12. Principles of prevention of occupational diseases and poisonings.
14. Medical and labor examination for occupational diseases, medical and occupational rehabilitation.
16. Pneumoconiosis: etiology, pathogenesis, classification, diagnosis. Treatment.
18. The main issues of prevention of pneumoconiosis. Examination of working capacity.
20. Silicosis. Pathogenesis. Clinical picture. Diagnosis. Treatment. Examination of working capacity.
22. Coniotuberculosis. Pathogenesis. Classification. Clinic. Diagnosis. Treatment. Prevention. Examination of working capacity.
24. Silicosis (asbestosis, cement pneumoconiosis). Clinical picture. Diagnosis. Treatment. Examination of working capacity.
26. Carboconiosis (anthracnose, graphitosis). Clinical picture. Diagnosis. Treatment. Examination of working capacity.
28. Metalloconiosis (siderosis, aluminosis). Clinical picture. Diagnosis. Treatment. Examination of working capacity.
30. Pneumoconiosis of electric welders. Clinical picture. Diagnosis. Treatment. Prevention. Examination of working capacity.
32. Hypersensitive pneumonia. Features of the clinical course. Diagnosis.
34. Beryliosis. Pathogenesis. Clinic. Diagnosis. Treatment. Prevention. Examination of working capacity.
36. Bisinosis. Features of the clinical picture. Diagnosis. Treatment. Examination of working capacity.
38. Exogenous allergic alveolitis. Etiology. Pathogenesis. Clinical manifestations. Diagnosis. Prevention. Issues of medical and

labor examination and labor rehabilitation.

40. Chronic obstructive pulmonary disease of dust etiology. Reasons. Pathogenesis. Classification. Clinic. Differential diagnosis. Treatment. Prevention. Examination of working capacity.
42. Benzene intoxication. Classification. Mechanism of action. Clinical picture. Diagnosis. Treatment. Prevention. Examination of working capacity.
44. Intoxication by amino and nitro compounds. Pathogenesis. Clinical picture. Diagnosis. Treatment. Examination of working capacity. Prevention.
46. Carbon (II) oxide poisoning. Mechanism of action. Classification. Clinical picture. Diagnosis. Examination of working capacity.
48. Lead intoxication. Features of the clinical picture. Forms of the disease.
50. The main diagnostic criteria of sideroachrestic anemia in lead intoxication
52. Methods of treatment of lead intoxication. Preventive measures. Examination of working capacity.
54. Modern ideas about the mechanism of action of toxic and chemical agents on the development of pathology of the bronchopulmonary system.
56. Acute respiratory lesions of toxic-chemical etiology. Pathogenesis, clinic, diagnosis, treatment, examination of efficiency, prevention.
58. Chronic lung lesions of toxic-chemical etiology. Pathogenesis. Clinic. Diagnosis. Treatment. Prevention. Examination of working capacity.
60. Mercury poisoning. Pathogenesis. Classification, clinical picture. Diagnosis. Treatment. Prevention. Examination of working capacity.
62. Manganese poisoning. Pathogenesis. Classification ". Clinic. Diagnosis. Treatment. Prevention. Examination of working capacity.
64. Tetraethyl lead poisoning. Mechanism of action. Classification. Clinic. Treatment. Prevention. Examination of working capacity.
66. Poisoning by organochlorine compounds. Pathogenesis. Clinical picture. Treatment. Examination of working capacity. Prevention.
68. Poisoning by organophosphorus compounds. Pathogenesis. Clinic. Treatment. Examination of working capacity. Prevention.
70. Poisoning by organomercury compounds. Pathogenesis. Clinic. Treatment. Examination of working capacity. Prevention.
72. Basic principles of emergency care and antidote therapy for acute occupational poisoning.
74. Occupational bronchial asthma. Characteristics of allergens that cause occupational bronchial asthma.
76. Classification of occupational bronchial asthma. Pathogenesis.
78. Clinical manifestations of occupational bronchial asthma. Features of diagnostics. Prevention. Examination of working capacity.
80. Vibration disease due to local vibration. Pathogenesis, classification, features of clinic, diagnostics, differential diagnostics, treatment, examination of working capacity, prevention.
82. Vibration disease due to the action of general vibration. Pathogenesis, classification, features of clinic, diagnostics, differential diagnostics, treatment, examination of working capacity, prevention.
84. Methods of laboratory and instrumental diagnosis of vibration pathology.
86. Neurosensory deafness. Pathogenesis, classification, clinic, diagnosis, treatment, examination of efficiency, prevention.
88. Caisson disease. Pathogenesis. Clinic. Diagnosis. Treatment. Prevention. Examination of working capacity.
90. Altitude sickness. Mechanism of action of reduction of partial pressure of oxygen in the inhaled air. Clinic. Treatment. Prevention.
92. Influence of electromagnetic waves of radio frequencies on a human body. Mechanism of action. The

main clinical syndromes. Treatment. Prevention. Examination of working capacity.

94. Occupational diseases caused by ultrasound.
96. Overheating in the production environment. Pathogenesis. Clinical picture. Diagnosis. Treatment. Prevention. Examination of working capacity.
98. Supercooling in a production environment. Pathogenesis. Clinical picture. Diagnosis. Treatment. Prevention. Examination of working capacity.
100. Identify the main professions that belong to the risk group for the development of occupational diseases of the musculoskeletal system.
102. The main clinical forms of occupational dyskinesias. Pathogenesis. Clinical picture. Diagnosis. Treatment. Prevention. Examination of working capacity.
104. Differential diagnosis of occupational diseases of the musculoskeletal system.
106. Chronic myofibrosis. Pathogenesis. Clinical picture. Diagnosis. Treatment. Prevention. Examination of working capacity.
108. Bursitis. Pathogenesis. Clinical picture. Diagnosis. Treatment. Prevention. Examination of working capacity.
110. Periarthritis of the shoulder joint. Pathogenesis. Clinic. Diagnosis. Treatment. Prevention. Examination of working capacity.
112. Mono- and polyneuropathy of the upper and lower extremities. Vegetative- sensory radiculopathy and radiculomyelopathy. Clinical picture. Diagnosis. Treatment. Prevention. Examination of working capacity.

BLOCK 2. FUNDAMENTALS OF DIAGNOSIS, TREATMENT AND PREVENTION OF PATHOLOGY OF INTERNAL ORGANS

RHEUMATOLOGY

1. Classification of immunodeficiency states. Primary immunodeficiency states with disorders in the humoral (B-cell) and T-cell links: basic syndromes, features of the clinical course, diagnosis, principles of therapy.
2. Classification of immunodeficiency states. Primary immunodeficiency states with deficiency of phagocyte functions, insufficiency of the complement system and combined primary immunodeficiency states: basic syndromes, features of the clinical course, diagnosis, principles of therapy.
3. Acute rheumatic fever. Definition. The role of streptococcal infection and immunological reactivity in the development of acute rheumatic fever. Classification. Clinical picture (carditis, polyarthritis, chorea, skin lesions). The value of laboratory and instrumental research methods . Criteria for diagnosis. Differential diagnosis Complications. Treatment taking into account the degree of activity. Primary and secondary prevention. Forecast and efficiency.
4. Systemic lupus erythematosus. Definition. Etiological factors and pathogenesis. Classification. Clinical manifestations depending on the damage to organs and systems and disease activity. The value of laboratory, including immunological, research methods. Diagnostic criteria. Differential diagnosis. Complication. Principles of treatment taking into account the degree of activity. Pulse therapy. Prevention. Forecast and efficiency.
5. Systemic connective tissue diseases (systemic scleroderma, dermatomyositis). Definition. Etiological factors, pathogenesis. Classification. Clinical picture depending on the damage to organs and systems. Diagnostic criteria, Differential diagnosis. Complication. Principles of treatment. Prevention. Forecast and efficiency.
6. Systemic vasculitis. Hemorrhagic vasculitis (Shenlein-Genoch vasculitis), hypersensitive vasculitis, nodular polyarteritis. Definition. Etiology, pathogenesis. Clinical manifestations, diagnostic criteria. Differential diagnosis. Treatment. Prevention. Forecast and efficiency.

7. Rheumatoid arthritis. Definition. Etiology, pathogenesis. The role of immune status disorders in the development of the disease. Classification. Clinical picture taking into account the activity of the pathological process, the stage of the disease, systemic manifestations. The value of laboratory and instrumental methods for the diagnosis of the disease, its stage and activity. Criteria for diagnosis, the importance of the study of synovial fluid. Differential diagnosis. Complication. Treatment strategy. Basic therapy. Tactics of treatment with glucocorticoids and nonsteroidal anti-inflammatory drugs. Prevention. Forecast and efficiency.

8. Osteoarthritis. Definition. Etiology, pathogenesis. Classification. Clinical picture depending on the predominant location of lesions. Diagnosis. Differential diagnosis. Drug and non-drug treatment. Primary and secondary prevention. Forecast and efficiency.

9. Gout. Definition. Etiology, pathogenesis. Classification. Features of the joint syndrome and lesions of internal organs. Criteria for diagnosis. Differential diagnosis. Complication. Drug and non-drug treatment. Prevention. Forecast and efficiency.

10. Seronegative spondyloarthropathy (ankylosing spondylitis, reactive arthritis). Ankylosing spondylitis. Definition. Etiology, pathogenesis. Classification. Clinical picture. The value of instrumental and laboratory methods. Criteria for diagnosis. Differential diagnosis. Drug and non-drug treatment. Prevention. Forecast and efficiency. Reactive arthritis. Definition. Etiology, pathogenesis. Classification. Clinical manifestations of reactive arthritis of various etiologies. Reuters syndrome, the importance of laboratory and instrumental methods of diagnosis. Diagnostic criteria, Differential diagnosis. Treatment, the role of antibacterial therapy. Primary and secondary prevention. Forecast and efficiency.

11. Organization of therapeutic care in wartime and in emergencies in peacetime. General issues of organization of therapeutic care in wartime and in emergencies in peacetime. Characteristics of modern combat therapeutic pathology . Structure and nature of sanitary losses of therapeutic profile. Principles of medical sorting of patients and victims of therapeutic profile. Types and scope of medical care for the affected and patients of therapeutic profile at the stages of medical evacuation.

12. Radiation damage. The concept of radiation injury, medical care at the stages of medical evacuation.

13. Acute radiation sickness. Stage treatment of patients with acute radiation sickness. Atypical forms of radiation sickness. Types of ionizing radiation, units of measurement and dosimetry. The main links of biological action of ionizing radiation and pathogenesis of the main clinical forms of radiation damage. Clinic and diagnosis of various forms of acute radiation sickness.

14. Features of radiation damage in peacetime. Classification of bone marrow form of acute radiation sickness. Features of the clinical picture in different periods of the disease. differential diagnostic criteria for the severity of the disease. identification of life-threatening conditions at each stage of the evacuation.

15. Principles of pathogenetic treatment of acute radiation sickness taking into account the leading manifestations of the disease. the amount of medical care at the stages of medical evacuation. Types of atypical forms of acute radiation sickness.

16. Features of the clinic of acute radiation sickness with external uneven irradiation, combined radiation damage, internal irradiation, combined irradiation, neutron lesions and prolonged exposure to small doses. Providing medical care at the stages of medical evacuation.

17. Diseases of the internal organs in combat surgical trauma and injuries in disasters and accidents in peacetime. Classification of pathological changes of internal organs in the wounded. General gunshot wound syndromes. Diseases of the internal organs in the wounded. Treatment of diseases of internal organs in the wounded at the stages of medical evacuation. Prevention.

18. Burn disease. Definition, pathogenesis and classification. The main clinical manifestations and complications. Diagnosis. Staged treatment of patients with burns. Features of treatment of burn shock.

19. Prolonged compression syndrome. Definition. Pathogenesis, classification, clinical manifestations. The amount of assistance at the stages of medical evacuation.

20. The concept of overheating, hypothermia. Complications from internal organs under the influence of thermal factors. Features of the clinic, diagnosis. Prevention and staged treatment.

21. Combat mental trauma and its consequences. The concept of acute reaction to combat stress and post-traumatic stress disorder. Features of the clinic, diagnosis. Emergency care in crisis situations.

22. Emergencies (acute heart failure, coma, fainting, acute respiratory failure, impaired water-electrolyte metabolism, etc.). Terminal states. Providing emergency care at the stages of medical evacuation.

23. Defeat by poisonous substances in wartime and peace. Classification of toxic substances. Mechanism of toxic action. Clinical manifestations of lesions of toxic substances (chlorine-containing, fluorine-containing, carbon monoxide, ammonia, cyanides, etc.). Diagnosis. Step-by-step treatment of those affected by toxic substances . Volumes of medical care.

CARDIOLOGY:

1. Essential hypertension. Definition. The importance of smoking, environmental, occupational factors and infection in the development of primary hypertension . Classification. Clinical manifestations, data of laboratory and instrumental research methods depending on the stage (severity). Differential diagnosis. Complication. Treatment. Primary and secondary prevention. Forecast and efficiency.

2. Symptomatic hypertension Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

3. Pharmacotherapy for hypertension. Principles of treatment of hypertension and symptomatic hypertension. Classification of antihypertensive drugs. Rationale for the choice of drug depending on the stage and degree of hypertension and the type of hemodynamics. Characteristics of first and second line drugs. Dose regimen. Comparative characteristics of drugs in terms of effectiveness, compatibility of drugs in different variants of the course and the presence of concomitant pathology. The choice of drug and dosage regimen depending on age, pregnancy. Evaluation of the effectiveness and safety of the application. Principles of treatment of hypertensive crises.
Etiopathogenetic principles of treatment of arterial hypotension. Classification of hypertensive drugs. Comparative characteristics of drugs, choice of drugs and dosage regimen. Evaluation of the effectiveness and safety of the application.

4. Chronic forms of coronary heart disease. Definition. Etiological factors. Classification. Clinical manifestations, data of laboratory and instrumental research methods. Differential diagnosis. Complication. Indications for paracentesis of puncture and drainage of the abdominal cavity. Treatment. Primary and secondary prevention. Forecast and efficiency.

5. Acute coronary syndrome (unstable angina, acute myocardial infarction). Definition. Factors that contribute to the development of acute coronary syndrome. Clinical manifestations, data of laboratory and instrumental research methods. Differential diagnosis. Complication. Treatment. Indications for surgical treatment. Primary and secondary prevention. Forecast and efficiency.

6. Congenital heart disease in adults. Definition. Classification. Causes. Features of the clinical course of different forms. Diagnosis, study of heart function, arterial and venous blood gases, indicators of acid-base status of blood. Differential diagnosis. Therapeutic tactics. Primary and secondary prevention. Forecast and efficiency.

7. Acquired heart defects (seminar). Definition. Classification. Causes. Features of the clinical course of different forms. Diagnosis, study of heart function, arterial and venous blood gases, indicators of acid-base status of blood. Differential diagnosis. Therapeutic tactics. Primary and secondary prevention. Forecast and efficiency.

8. Infectious endocarditis (seminar). Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

9. Pericarditis. Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

10. Myocarditis and cardiomyopathy. Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

11. Pulmonary heart. Pulmonary artery thromboembolism. Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

12. Abnormal heart rhythm. Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

13. Impaired conduction of the heart. Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

14. Acute heart failure. Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

15. Chronic heart failure. Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods . Differential diagnosis. Complication. Treatment. Emergency care for hypertensive crisis . Primary and secondary prevention. Forecast and efficiency.

LIST OF PRACTICAL SKILLS, THE ACQUISITION OF WHICH IS CONTROLLED DURING PMK MODULE 1

I. Analysis of laboratory and instrumental research

1. The general analysis of blood
2. General analysis of urine
3. Analysis of urine according to Zymnytsky
4. Analysis of urine by Nechiporenko
5. Analysis of urine for diastase
6. General analysis of feces
7. Blood protein and its fractions, acute phase parameters
8. Glucose Blood
9. Blood electrolytes
10. Lipid profile of blood
11. Alkaline blood phosphatase
12. Blood transaminases
13. Creatinine, blood urea
14. Total blood bilirubin and its fractions, analyze the Polachek curve
15. Coagulogram
16. Analysis of pleural fluid
17. Analysis of synovial fluid
18. General analysis of sputum
19. General immunological profile of blood
20. Serological reactions in autoimmune diseases
21. Microbiological study of biological fluids and secretions
22. Radiation study CNS of the chest and abdominal cavity, urinary system.
23. Study of the function of external respiration

24. ECG
25. Endoscopic examination of the bronchi
26. Endoscopic examination of the digestive tract
27. Echocardiography
28. Radiation examination of bones and joints
29. Radiation study of the CNS
30. Tuberculin diagnosis
31. Fractional study of gastric juice, bile and pH-metry of the stomach

II. Medical manipulations

1. Carry out ECG recording
2. Carry out injections of medicinal substances
3. Measure blood pressure
4. Carry out catheterization of the bladder with a soft probe
5. Perform a pleural puncture
6. Perform artificial respiration, indirect heart massage
7. Determine blood groups , rhesus affiliation

III. Providing assistance during emergency conditions

1. Asthmatic condition
2. Anaphylactic shock
3. Acute respiratory failure
4. Collapse
5. Acute liver failure
6. Acute renal failure
7. Gastrointestinal bleeding

LIST OF PRACTICAL SKILLS, mastering WHICH controlled DURING TIME PMC MODULE 2

I. Analysis of laboratory and instrumental research

1. The general analysis of blood
2. General analysis of urine
3. General analysis of cerebrospinal fluid
4. Coprogram
5. Serological reactions in infectious diseases
6. Bacteriological study of biological fluids and secretions
7. Immunological markers of infectious diseases
8. Blood bilirubin and its fractions
9. Alkaline phosphatase, thymol test, blood transaminases

2. Providing assistance in emergencies :

1. Infectious and toxic shock in meningococcal infection
2. Edema-swelling of the brain in meningitis and encephalitis
3. Toxic-exicosis in acute intestinal infections
4. Neurotoxicosis in acute intestinal infections
5. Acute liver failure in viral hepatitis
6. Acute stenotic laryngotracheitis in SARS
7. Hyperthermic syndrome with influenza
8. Febrile convulsions with influenza
9. Anaphylactic shock during vaccination

THE LIST OF QUESTIONS FOR THE FINAL CONTROL IN THE 6TH COURSE

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 an addison 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

LIST OF PRACTICAL SKILLS, THE ACQUISITION OF WHICH IS CONTROLLED DURING PMK MODULE 1

List 1 (Emergencies)

1. Addisonic crisis
2. Hypoglycemic coma
3. Acute respiratory failure
4. Acute hepatic encephalopathy
5. Diabetic ketoacidotic coma
6. Bile colic
7. Severe exacerbation of bronchial asthma
8. Thyrotoxic crisis
9. Esophageal and gastrointestinal bleeding

List 2 (Medical manipulations)

1. Perform indirect heart massage;
2. Perform artificial respiration;
3. Carry out defibrillation using a manual automatic defibrillator-cardioverter;
4. To register a standard ECG in 12 leads;
5. Carry out a temporary stop of external bleeding;
6. Carry out primary surgical treatment of the wound, dressing, removal of skin sutures, including in the field;
7. Apply bandages, including in the field;
8. Install a nasogastric and orogastric tube;
9. Carry out transport immobilization;
10. Carry out the introduction of drugs (intravenous jet and drip, intraosseous), including in the field;
11. Provide peripheral venous access;
12. Measure blood pressure;
13. Restore airway patency;
14. Catheterize the bladder with a soft probe;
15. Perform nasal tamponade;
16. Perform the technique of contact of the newborn "skin to skin" and early application to the breast;
17. Carry out a finger examination of the rectum and with the help of a rectal mirror;
18. Carry out a finger examination of the prostate;
19. Carry out a clinical examination of the mammary glands;
20. Perform a pleural puncture;
21. Determine blood type, rhesus affiliation;
22. Transfuse blood components and blood substitutes;
23. Conduct bimanual examination and examination of women in mirrors;
24. Perform pelviometry;
25. To carry out external (Leopold's receptions) and internal obstetric research;
26. Carry out auscultation of the fetus;
27. Taking smears for bacterioscopic, bacteriological and cytological examinations.

LIST OF PRACTICAL SKILLS, THE ACQUISITION OF WHICH IS CONTROLLED DURING PMK MODULE 2

KNOW THE CLINICAL PHARMACOLOGY OF THE MAIN GROUPS OF MEDICAL DRUGS

1. Antibacterial
2. α and β-adrenostimulants
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

ABILITY TO PREPARE MEDICAL DOCUMENTATION

1. Medical card of an inpatient

2. Extract from the medical card of an inpatient
3. Procedural sheet (form B №28)
4. Referral to MSEC
5. Medical death certificate
6. Leaflet of incapacity for work
7. Sanatorium-resort map
8. Recipes for all sections of the discipline.

"0" version of the exam ticket for 4th course students
Petro Mohyla Black Sea National University
Educational qualification level - master
Field of knowledge: 22 Health care
specialty 222 Medicine

Course - INTERNAL MEDICINE, INCLUDING MEDINA GENETICS, ENDOCRINOLOGY

Option № 0

1. Gastroesophageal reflux disease. Definition. Etiology, pathogenesis. Classification. Erosive and non-erosive GERD. Clinical manifestations depending on the variant and stage. Data of laboratory and instrumental research methods. Diagnosis criteria , differential diagnosis. Complications, treatment. **- maximum number of points - 20.**
2. Diabetes mellitus: etiology, clinical picture, unified protocols for hypoglycemic coma. **- 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 man has a fever of up to 40 ° C, chills, cough with viscous mucous sputum, which contains blood impurities, chest pain when coughing and deep breathing, pronounced blush on the right cheek, herpetic rashes on the lips. Shallow breathing, its frequency is 28 / min. The right side of the thoracic cage - ing behind breathing. Bronchial respiration is heard above the lower part of the right lung. In the blood erythrocytes 5.2 10^{12}/ l, leukocytes 16.0 '10^{9}/ l, fibrinogen 8 g / l, C-reactive protein ++. 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", the protocol № ___ from "__" _____ 2021.

Head of the Department Professor Zak M.Y.
Examiner Professor Zak M.Y.

An example of the final control work on block 1

Solving problems Step-2

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

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

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

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

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

An example of the final control work on block 2

Solving problems Step-2

1 As a result of which pathological conditions can chronic heart failure develop?

- A. Ventricular tachycardia
- B. Ventricular fibrillation
- C. Myocardial infarction
- D. Acute myocarditis
- E. All these diseases

2 As a result of which pathological conditions can develop right ventricular failure?

- A. In the presence of mitral heart disease
- B. With a pulmonary heart
- C. In the presence of pulmonary artery thrombosis,
- D. With diffuse changes in the myocardium and myocardial infarction of the right ventricle
- E. With all these diseases

3 As a result of which pathological conditions can develop left ventricular failure?

- A. In patients with myocardial infarction
- B. In ischemic heart disease, atherosclerotic cardiosclerosis
- C. With hypertension
- D. At defects of aortic valves
- E. With all these diseases

4 Hypertrophy and tonogenic dilatation of the heart to maintain normal blood circulation is called:

- A. The state of cardiac compensation
- B. State of cardiac decompensation
- C. The state of cardiac subcompensation
- D. The state of cardiac hypocompensation
- E. Condition of cardiac hypercompensation

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

"0" version of the exam ticket for 5th course students
Petro Mohyla Black Sea National University
Educational qualification level - master
Field of knowledge: 22 Health care
specialty 222 Medicine

Course - "INTERNAL MEDICINE, INCLUDING CLINICAL PHARMACOLOGY, CLINICAL IMMUNOLOGY AND ALLERGOLOGY, OCCUPATIONAL DISEASES"

Option № 0

1. Gout. Definition. Etiology, pathogenesis. Classification. Features of the joint syndrome and lesions of internal organs. Criteria for diagnosis. Differential diagnosis. Complication. Drug and non-drug treatment. Prevention. Forecast and efficiency. **- maximum number of points - 20.**
2. Classification of cardiac glycosides. Principles of dosing. Cardiac and noncardiac effects of cardiac glycosides. Indications for use. **- maximum number of points - 20.**
3. **Practical skill:** algorithm of catheterization of the bladder with a soft catheter. **- maximum number of points - 20.**
4. **Situational task** : 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. 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", the protocol № ___ from "__" _____ 2021.

Head of the Department Professor Zak M.Y.

Examiner **Professor Zak M.Y.**

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

1. The patient after lifting a heavy bag suddenly developed acute low back pain. Movements in spines are limited. The Achilles' reflex on the left is not caused, anesthesia has appeared pain sensitivity on the outer surface of the left leg. What a 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 rash on skin, 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 available 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 the 3rd day they appeared blistering rash 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 blistering rash on the forehead on the left and left upper eyelid. What can the disease 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 department 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 injured with a fracture of the clavicle, appeared flaccid atrophic paralysis of the right hand with a violation of all types of sensitivity in it. What disease should I think?
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 while climbing stairs consciousness. The skin is pale, the pupils are wide, clonic - tonic convulsions, chest motionless. Diagnosis:
A Clinical death
B Social death
C Preagony
D Agony
E Biological death

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

9. A 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, on the backgroun whose general condition continues to deteriorate. Suspected viral hepatitis Which of markers of viral hepatitis are more likely to be positive in the 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 incision of the heifer, had a spot on his arm, which day turned into a pustule with a black bottom, painless to the touch, with a crown daughter vesicles on the periphery. Painless swelling on the arm and shoulder. Increased to 39 body temperature. Pulse-100, AT-95/60, BH-30 per minute. Which diagnosis is the most probable?
A Anthrax
B Plague
C Tularemia
D Brucellosis
E Herpes zoster

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

An example of the final control work on block 2

Solving problems Step-2

1. 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 examination of the thoracic cavity, the transverse size of the shadow of the heart is increased, the shape of the shadow is triangular with rounded cardiodiaphragmatic angles. Abbreviat hearts of small amplitude, arrhythmic. The radiological signs with the greatest are revealed probability 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 passing food. For the first time dysphagic phenomena noticed 6 months ago. They have intensified in the last two months. At the time of the delay in in the esophagus of dense food there are pains behind the sternum. When reviewing changes in internal organs not detected. In the blood test: leukocytosis 11.109 without changes in the formula, ESR 57mm / year. There are traces of protein in the urine. During X-ray examination of the esophagus in phase of "tight filling" is determined by the narrowing of the lumen of the esophagus in the middle third for 6 cm on the front wall is a filling defect with uneven contours, the rear wall at this level is uneven. The upper third of the chest department is slightly expanded, 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 examination pulmonary pattern is enhanced by venous stasis. The roots of the lungs extended, unstructured. The middle shadow is enlarged, protruding along the left contour pulmonary artery arc. In the first oblique position retrocardial space narrowed by an enlarged left atrium, which displaces the esophagus back along the arc of the small radius. In the second oblique position there is an increase in the arch 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 noise was heard over aorta. On a review radiograph, the shadow of the heart of the aortic configuration is enlarged arch of the aorta and left ventricle. The pulmonary pattern is not changed. Aortic pulsation reinforced. 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. Recently increased shortness of breath during exercise, asthma attacks 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: pronounced hypertrophy of the upper third of the interventricular septum, left ventricle normal size, the fraction of its release? 65%. Progression of heart failure in the patient is due to:

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. At the athlete of 20 years at echocardiographic research small is found defect in the muscular part of the interventricular septum with blood discharge from left to right. Which 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. The addict has a body temperature of 26 years for 38-39 (C, shortness of breath, swelling of the legs. Determined positive venous pulse, pulsation of the liver. Aloud systolic is heard above the lower part of the sternum noise that increases during inhalation. Echocardiographic examination is required for diagnostics

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 early childhood 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 chest radiograph – enlargement trunk and 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 on the skin limbs there was a small-spot hemorrhagic rash, there were cramping pains i abdominal, bloody discharge from the rectum. 2 weeks before that she suffered acute viral infection. Objectively: blood pressure 90/60 mm Hg. st., heart rate? 95 / min, abdomen on palpation tense, there are symptoms of peritoneal irritation. In the study of blood neutrophilic leukocytosis and eosinophilia, decrease in number are observed 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. Moon back ago I had a sore throat, was treated independently with antibiotics. 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 of the abdomenel 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, KP 0,70, thrombocytes - 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 sputum with streaks of blood, weight loss, then 37.2, loss of appetite, weakness. It hurts many years ago, the condition worsened a year ago and shortness of breath appeared 3 weeks ago. All my life smokes, works as a carpenter. About: normal physique, exhausted. Depression right half of the chest, restriction of the tour, the participation of additional muscles in breaths, the number of breaths 22 per minute Percussion over the upper right lobe, auscultatory: no breathing, vesicular rigid throughout. On Rtg OGK: the upper right lobe is reduced in size, above it is a homogeneous eclipse, associated with the root, the root is deformed, the organs of the interstitium 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 had an attack of shortness of breath during sports training, intense prickly pain in the right chest and cough. 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 tympanic shade, above the left - a clear lung. Auscultatory case is sharply weakened vesicular respiration, on palpation there is significantly weakened vocal tremor. On Rtg OGK: right clear field without pulmonary pattern, lung reduced, lying closer to the root, the organs of the interstitium are shifted to the left. Which diagnosis is the most reliable?
A Spontaneous pneumothorax
B Acute pneumonia
C Pulmonary infarction
D Intercostal neuralgia
E Thromboembolism of small branches of the pulmonary artery

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

"0" version of the credit card for 6th course students

Petro Mohyla Black Sea National University

Educational qualification level - master

Field of knowledge: 22 Health 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, skin spots. 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, minutes № ___ from "__" _____ 2021.

Head of the Department Professor Zak M.Y.

Examiner Professor Zak M.Y.

An example of the final control work on block 1

Solving problems Step-2

1. The patient after lifting a heavy bag suddenly developed acute low back pain. Movements in the spine are limited. The Achilles' reflex on the left is not caused, anesthesia of pain sensitivity on the outer surface of the left leg has appeared. What disease do you suspect?

A Lumbosacral radiculitis

B Lumbago

C Lumbalgia

D Femoral nerve neuritis

E Spinal arachnoiditis

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

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 the 3rd day, blistering rashes 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, appeared flaccid atrophic paralysis of the right hand 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 immobile. Diagnosis: ***A*** Clinical death

B Social death

C Preagony

D Agony

E Biological death

8.A young woman lost 8 kg of weight in 3 months, complains of palpitations, thickening of the neck, a 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.

9. A 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 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 0. 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 problems with the subsequent analysis of typical errors.

An example of the final control work on block 2

Solving problems 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 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. X-ray examination of the esophagus in the phase of "tight filling" determines the narrowing of the esophageal lumen in the middle third for 6 cm. The anterior wall shows 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 arch 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. Patient 17 years on draft board complained of noise uhah which amplifies during exercise. BP 150/30 mm Hg, diastolic murmur vysluhovuvsya the aorta. 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. Ripple aorta reinforced. Identified radiological changes most likely vidpovidpyut:

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. Recently strengthened dyspnea on exertion, took asthma attacks at night. Intense systolic murmur with the epicenter on the left edge of the sternum is not conducted 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 release? 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. At the athlete of 20 years at echocardiographic research the small defect in a muscular part of an interventricular membrane with blood dumping from left to right is revealed . 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. A 26-year-old addict has a body temperature that rises to 38-39 (C, shortness of breath, swelling of the legs. Positive venous pulse, liver pulsation are detected within 2 months . 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 chest radiograph - enlargement
trunk and 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 hemorrhagic rash, there were cramping pains in the abdomen, 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.
Month ago suffered from angina, treated with antibiotics alone. OBJECTIVE: general state of heavy leather and pale mucous membranes. The skin of the face and body spots of various sizes, blue and brown. On palpation of the abdomen is painless, the liver acts 1.5 cm from the edge of the right costal

arch. Complete blood count: EP - 1.2? 1012 / l HB - 50 g / l, 0.70 MP, platelets - 2? 109 / L anizopoykilotsytoz. ESR - 55 mm / h. What preliminary 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. The patient 20 years at a sports training appeared suddenly attack of breathlessness, intense stabbing pain in his chest right and cough. Ob-no: the patient is sitting in bed, pale. Thorax symmetric, limited tour right half, the number of breaths for 22 minutes. On the right half of the chest percussion sound from the tympanic shade above the left - clear lung. Auscultation matter greatly weakened vesicular respiration palpation there is much weakened voice trembling. On Rtg WGC: right field without a clear picture lehenovoho, reduced lung, is closer to the root of mediastinal organs shifted to the left. What is the most likely diagnosis?

A Spontaneous pneumothorax

B Acute pneumonia

C Pulmonary infarction

D Intercostal neuralgia

E Thromboembolism of small branches of the pulmonary artery

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

6. Evaluation criteria and diagnostic tools for learning outcomes in the 4th course control methods

- **Survey (testing of theoretical knowledge and practical skills).**
- **Test control.**

Current control. Testing in practical classes of theoretical knowledge and the acquisition of practical skills, as well as the results of independent work of students. Supervised by teachers according to the specific purpose of the curriculum. Assessment of the level of students' training is carried out by: interviewing students, solving and analyzing situational tasks and test tasks, interpreting the results of clinical-instrumental and clinical-laboratory research,

monitoring the acquisition of practical skills. Current control is carried out at each practical lesson in accordance with the specific objectives of each topic.

Intermediate control. Checking the possibility of students using for clinical and diagnostic analysis of theoretical knowledge and practical skills on all topics studied, as well as the results of independent work of students. Carried out in the last lesson on the topic by passing practical skills, solving situational problems and testing.

The final control work (RCC) is carried out upon completion of the study of all topics of each block in the last, control, lesson. Students who have attended all lectures, classroom classes, completed full-time independent work and scored not less than the minimum number of points in the study process - **70 points in the first block , 40 in the second block** (see lower)

In order to assess the learning outcomes of Pediatrics conducted **a final exam in the form of control, which is recommended for disciplines that are part of the integrated test examinations YEDKI and "Step 2".** Students who have both PKRs are admitted to the exam.

Evaluation of educational activities

In assessing the educational activities of students , preference is given to standardized methods of control: testing, structured written work, solving situational problems, structured by the procedure of control of practical skills in conditions close to real.

In evaluating the mastering of each topic for the current activity to the student estimations by multi (200-point) scale university that matches the scale of ECTS, given the approved evaluation criteria for the relevant discipline. This takes into account all kinds of work, provided the curriculum. The student has the right to obtain an assessment of each topic. The forms of assessment of learning activities include control of theoretical and practical training.

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 there are 23 practical classes (including 22 practical classes of 2 hours each, and 23 - lasting 1 hour, a total of 45 academic hours).

Current control is carried out in 22 practical classes.

Accordingly, **the maximum current rating for each practical class** is 120 points, 22 lessons = **5.45 points. The minimum score** - 70 points, 22 lessons = **3,18 points.**

A score lower than 3.18 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, 23rd, 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 30 practical classes (60 academic hours).

Current control is carried out in 29 practical classes.

That is, the **maximum score for each current practical lesson** is: 80 points: 29 lessons = **2, 76 points, the minimum** - 40 points: 29 lessons = **1.38 points.**

A score lower than 1.38 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, 30th, practical employment. In this case, the student can get a maximum of 40 points. The minimum positive score is 30 points.

At maximum positive exam score is 80 points, minimum - 50.

Assessment of student performance

Type of activity (task)	Maximum number of points
Block 1	
Practical classes from 1 to 22	5.45 points for each lesson
Total for 22 classes	120
Final control work on block 1 (practical lesson 23)	80
Together for block 1	200
Block 2	
Practical classes from 1 to 29	2.76 points for each class
A total of 29 lessons	80
Final Tests for unit 2 (practice session 30)	40
Together for block 2	120
Examination	80
Together for block 2 and the exam	200

Evaluation criteria Knowledge

With a score of 5.45 points in the autumn semester (2.76 points in the spring semester), 71-80 points on the RCC in the autumn semester (38-40 points in the spring semester) and 71-80 points on the exam (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 principles and the ability to apply theoretical material for practical analysis and has no inaccuracies.**

A score of 4.32 points in the fall semester (2.07 points in the spring semester), 61-70 points on the RCC in the fall semester (35-37 points on the RCC in the spring semester) and 61-70 points on the exam (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 3.18 points in the fall semester (1.38 points in the spring semester), 50-60 points on the RCC in the fall semester (30-34 points on the RCC in the spring semester) and 50-60 points on the exam (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.**

Criteria for assessing medical history

Assessment of the history of the disease as a mandatory individual work of the student, occurs during its defense in the process of individual work of the teacher with the student.

Grade 8 points ("excellent" on a national scale and a scale ECTS) is assigned if the student had a complete clinical examination of a sick child, described the results correctly assessed the clinical condition of the patient, clinical changes in the organs and body systems, laboratory and instrumental survey methods, correctly identified by clinical diagnosis and classification of diseases substantiate it had fully differential diagnosis, appointed the full and proper treatment, prognosis correctly identified and means of its prevention.

Score of 7 points ("good" on the national scale, B and C on the ECTS scale) is given if the student conducted a complete clinical examination of a sick child, but made inaccuracies in assessing the clinical condition, laboratory and instrumental methods of examination, correctly determined the clinical diagnosis and justified his, did not make a full differential diagnosis, prescribed the right treatment, but not in full or with minor errors.

Score of 6 points ("satisfactory" on the national scale, D and E on the ECTS scale) is given if the student made some mistakes in assessing the clinical condition of the patient, the results of clinical, laboratory and instrumental examination, diagnosis and justification, treatment or prognosis. .

Evaluation least 5 points ("unsatisfactory" on the national scale, Fx and F on a scale ECTS) is assigned if a student made a significant error in the analysis of the clinical condition, results of clinical, laboratory and instrumental examination of a sick child, did not establish the correct diagnosis is not assigned the correct treatment .

The work is considered completed if the student receives a positive assessment in writing and defending a medical history.

6. Criteria Evaluation and means of diagnostics results of studies on the 5th course

Control methods

- **Survey (testing of theoretical knowledge and practical skills).**
- **Test control.**

Current control. Testing in practical classes of theoretical knowledge and the acquisition of practical skills, as well as the results of independent work of students. Supervised by teachers according to the specific purpose of the curriculum. Assessment of the level of students' training is carried out by: interviewing students, solving and analyzing situational tasks and test tasks, interpreting the results of clinical- instrumental and clinical-laboratory research, monitoring the acquisition of practical skills. Current control is carried out at each practical lesson in accordance with the specific objectives of each topic.

Intermediate control. Checking the possibility of using students for clinical and diagnostic analysis of theoretical knowledge and practical skills on all topics studied, as well as the results of independent work of students. Carried out in the last lesson on the topic by passing practical skills, solving situational problems and testing.

The final control work (RCC) is carried out upon completion of the study of all topics of each block in the last, control, lesson. To the PKR allowed students who attended all prescribed curriculum lectures, classroom training sessions, completed fully independent work and during training gained score not less than the minimum - **in the first block of 70 points in the second - 40** (see. lower)

In order to assess the results of training in pediatrics , the **final control** is conducted **in the form of an exam, which is recommended for academic disciplines, which is part of the integrated test exams EDKI and "Step-2".** Students who have both PKRs are admitted to the exam

Evaluation of educational activities

When evaluating educational activities of students given preference standardized methods of control: testing, structured written work, solving situational tasks structured by the procedure control of practical skills in conditions that are close to reality.

At the time of evaluation mastering each topic on the current activities of the student exhibited estimates for multimark (200-point) scale university, which corresponds to the scale of ECTS with regard approved criteria for assessment for the relevant discipline. When this takes into account all kinds of work, provided the training program. The student has the right to receive an assessment of each topic. Forms of evaluation of educational activities include control of theoretical and practical training.

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 28 practical classes (56 academic hours).

Current control is carried out in 27 practical classes.

Accordingly, the **maximum score for each current practical lesson** is: 120 points: 27 lessons = **4.44 points. The minimum score** is 70 points: 27 classes = **2.59 points.**

A score lower than 2.59 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, 28th, 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 40 practical classes (80 academic hours).

Current control is carried out in 39 practical classes.

That is, the **maximum score for each current practical lesson** is: 80 points: 39 lessons = **2.05 points, the minimum** - 40 points: 39 lessons = **1.03 points.**

A score lower than 1.03 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, 40th, practical employment. In this case, the student can get a maximum of 40 points. The minimum positive score is 30 points.

At maximum positive exam score is 80 points, minimum - 50.

Assessment of student performance

Type of activity (task)	**Maximum number of points**
Block 1	
Practical classes from 1 to 27	4.44 points for each lesson
Total for 27 classes	120
Final control work on block 1 (practical lesson 28)	80
Together for block 1	200
Block 2	
Practical classes from 1 to 39	2.05 points for each lesson
A total of 39 lessons	80
Final control work on block 2 (practical lesson 40)	40
Together for block 2	120
Examination	80
Together for block 2 and the exam	200

Evaluation criteria Knowledge

With a score of 4.44 points in the autumn semester (2.05 points in the spring semester), 71-80 points on the RCC in the autumn semester (38-40 points in the spring semester) and 71-80 points on the exam (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 principles and the ability to apply theoretical material for practical analysis and has no inaccuracies.**

A score of 3.52 points in the fall semester (1.54 points in the spring semester), 61-70 points on the RCC in the fall semester (35-37 points on the RCC in the spring semester) and 61-70 points on the exam (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.**

A score of 2.59 points in the fall semester (1.03 points in the spring semester), 50-60 points on the RCC in the fall semester (30-34 points on the RCC in the spring semester) and 50-60 points on the exam (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.**

Criteria for assessing medical history

Assessment history of the disease as mandatory individual work of the student, going at the time of its defense in the process of individual work of teacher with student.

Score of 8 points ("excellent" on the national scale, and on the ECTS scale) is given if the student conducted a complete clinical examination of a sick child, described its results, correctly assessed the clinical condition of the patient, clinical changes in organs and systems, laboratory and instrumental results. survey methods, right clinical diagnosis determined by the classification of diseases and substantiate it in the full amount spent differential diagnosis, appointed a full and proper treatment, correctly identified the prognosis of the disease and means of its prevention.

Grade 6-7 points ("good" on a national scale, B and C on a scale ECTS) is assigned if the student had a complete clinical examination of the sick child, but admitted errors in the evaluation of clinical condition, results of laboratory and instrumental methods of examination correctly identified clinical diagnosis and grounded it made incomplete differential diagnosis appointed proper treatment, but not in full volume or minor errors.

A score of 4.7-5 points in the first block and 4-5 points in the second block ("satisfactory" on the national scale, D and E on the ECTS scale) is given if the student made some mistakes in assessing the clinical condition of the patient, the results of clinical, laboratory and instrumental examination, establishment and substantiation of the diagnosis, appointment of treatment or determination of the prognosis of the disease.

Evaluation least 4.7 points in the first block and at least 4 of the second block ("unsatisfactory" on the national scale, Fx and F on a scale ECTS) is assigned if the student made a significant error in the analysis of the clinical condition, results of clinical, laboratory and instrumental examination of patient child, did not make the correct diagnosis, did not prescribe the correct treatment.

The work is considered completed if the student receives a positive assessment in writing and defending a medical history .

Evaluation criteria and diagnostic tools for learning outcomes in the 6th course

Control methods

- **Survey (testing of theoretical knowledge and practical skills).**
- **Test control.**
- **Writing a review of scientific literature (abstracts), performing individual tasks, their defense.**

Current control. Testing in practical classes of theoretical knowledge and the acquisition of practical skills, as well as the results of independent work of students. Supervised by teachers according to the specific purpose of the curriculum . Assessment of the level of student training is carried out by: interviewing students, solving and analyzing situational tasks and test tasks, interpreting the results of experimental and clinical and laboratory research, monitoring the acquisition of practical skills.

Intermediate control. Checking the possibility of using students for clinical and diagnostic analysis of theoretical knowledge and practical skills on all topics studied, as well as the results of independent work of students. Carried out in the last lesson by section by passing practical skills, solving situational problems and testing.

The final control is carried out upon completion of the study of all topics of the module at the last control lesson of the semester. Includes theoretical and practical parts.

In order to establish the results of training in pediatrics with pediatric infectious diseases is also a **final control in the form of a test.**

Before final control students who attended all the provided tutorial lectures, lecture classes, completed fully independent work and in the process of learning gained number of points not less than the minimum - **60 points in the fall semester and 40 points in the spring semester.** Students who have passed the final tests for blocks 1 and 2 are admitted to the test .

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 40 practical classes (80 academic hours).

Current control is carried out in 39 practical classes.

Accordingly, the **maximum score for each current practical lesson** is: 120 points: 39 lessons = **3.08 points. The minimum score** is 70 points: 39 classes = **1.79 points.**

A score lower than 1.79 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, 40th, 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 57 practical classes (114 academic hours).

Current control is carried out in 56 practical classes.

That is, the **maximum score for each current practical lesson** is: 80 points: 56 lessons = **1.43 points, the minimum** - 40 points: 56 lessons = **0.71 points.**

A score lower than 0.71 points means "unsatisfactory", the lesson is not credited and must be practiced in the prescribed manner.

PKR on block 2 is carried out on the last, 57th, 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 39	3.08 points for each lesson
A total of 39 lessons	120
Final control work on block 1 (practical lesson 40)	80
Together for block 1	200
Block 2	
Practical classes from 1 to 56	1.43 points for each lesson
A total of 56 lessons	80
Final control work on block 2 (practical lesson 57)	40
Together for block 2	120

Test	80
Together for block 2 and credit	200

Evaluation criteria Knowledge

Score of 3.08 points in the autumn semester (1.79 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 principles and the ability to apply theoretical material for practical analysis and has no inaccuracies.**

With a score of 2.26 points in the autumn semester (1.25 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.**

A score of 1.43 points in the fall semester (0.71 points in the spring semester), 50-60 points on the RCC in the fall semester (30-34 points on the RCC in the spring semester) and 50-60

points on the test (D and E on the ECTS scale and 3 on the national scale) **the student's answer is evaluated provided that he knows the main theoretical provisions and can use them in practice.**

RECOMMENDED BOOKS

7.1. Basic

1. Internal Medicine: General Practitioner's Guide: a textbook. / A.C. Svintsitsky, OO Абрагамович, П.М. Bodnar and others; For order. prof. A.S. Svintsitsky. - VSV "Medicine", 2020. - 1272 p. + 16s.

2nd ed ., Reworked . and ext . / Kostiuk And . F ., Kapustnik in . A . - К .: Здоров ' я , 2019. - 636 с .

2. Kolomoets , M . Yu . Occupational disease / Kolomoets , M . SW ., Huhlina Oh . C . - К .: Здоров ' я , 2015. - 628 с .
3. Small, VP Occupational diseases: Textbook. / Маленький В.П. - К .: Нова книга, 2015. - 336 с.
4. Internal medicine: a manual at 10 o'clock: Order. O.O. Abrahamovich. - Vol. 2, Part 9: "Occupational diseases" / Lviv: OJSC "Lviv Book Factory" Atlas ", 2014. - P. 461-521.
5. Artamonova, VG Occupational diseases. Textbook - 4th ed., Revised. and ext. / Artamonova VG, Mukhin NA - M .: Медицина, 2020. - 480 с.
6. Kostiuk , and . F . Occupational diseases . Occupational diseases: Textbook (in English) / Kostyuk IF, Kapustnik VA - Kharkiv: Fakt, 2015. - 416 p.
7. McCunney, RJ A Practical Approach to Occupational and Environmental Medicine. - 3rd edition / McCunney RJ, Rountree PP, Barbanel CS, Borak JB, Bunn WB - Lippincott Williams & Wilkins, 2018. - 912 p.
8. Rosenstock , L. Textbook of Clinical Occupational and Environmental Medicine. - 2 nd edition. / Rosenstock L., Cullen MR Brodkin C., Redlich C. - Saunders , 2016. - 1328 p.
9. Clinical immunology and allergology // Textbook edited by: Corresponding Member. AMNU, MD, prof. OHM. Bilovola, MD, prof. P.G. Kravchuna, MD, prof. V.D. Babajana, MD, prof. L.V. Kuznetsova) - Kharkiv "Vulture", 20 18 . - 549c.
10. Clinical and laboratory immunology. National textbook // for general. ed. MD, prof. Kuznetsova LV, MD, prof. Babajana VD, MD, prof. Frolova VM - K. LLC. Polygraph Plus - Kyiv, 20 18 . - 922c.
11. Visual immunology // ed. G. - R. Burmeister, A. Petzutto. Per. with English - M .: Binom. Laboratory of Knowledge, 2019. - 320 pp .: ill.– (Visual medicine).
12. Clinical immunology and allergology. // Kazmirchuk VE, Kovalchuk LV, Maltsev DV - K.: Феникс, 2019. - 524с.

13. Kuznetsova LV, Litus VI, Babajan VD, and others. Modern view on the problem of helminthiasis // Practical manual. - Kyiv: Yuston Publishing House LLC, 2018. - 64 p.
14. National textbook on rheumatology / VM Kovalenko, NM Shuba, VK Kazimirko [etc.]; for order. VM Kovalenko, NM Shubi. - K.: MOPIOH, 2013. - 671 c. : tab., il.
15. Kelley's Textbook of Rheumatology E-Book, 10th Edition, 2014. By Gary S. Firestein, MD, Ralph Budd, Sherine E Gabriel, MD, MSc, James R O'Dell, MD and Iain B. McInnes, PhD, FRCP , FRSE.
16. Internal Medicine: A Guide. - Part II. Cardiology, rheumatology, nephrology, general issues of internal medicine / Edited by prof. Stanislavchuk MA Vinnytsia, Vinnytsia City Printing House LLC. 2014. - 468 p.
17. Practical skills in rheumatology Textbook. / Edited by Art. - Corr. Academy of Medical Sciences of Ukraine, Prof. VM Kovalenko, prof. NM Fur coats - K .: Morion, 2018. - 255p.
18. Svintsitsky AS, Yaremenko OB, Puzanova OG, Khomchenkova NI Rheumatic diseases and syndromes. - K .: Книга плюс, 2016. - 680 с.
19. Rheumatic diseases and syndromes (reference book) / AS Svintsitsky, OB Yaremenko, OG Puzanova, NI Khomchenkova / Kyiv, Book Plus, 2016;
20. Nomenclature, classification, diagnostic criteria and principles of treatment of rheumatic diseases / Ed. Art. - cor. Academy of Medical Sciences of Ukraine, prof. V.M. Kovalenko, prof. N.M. Shubi - K., 2014. - 156p.

7.2.Auxiliary

1. Internal Medicine. Therapy. Textbook 4 types / Ed .. NM Seredyuka. - VSV "Medicine", 2017. - 688 pages (illustrations, tables, diagrams) .
2. Diagnostic, therapeutic and prophylactic algorithms in internal medicine: teaching method. way. / [B. I. Denesyuk and others]; for order. prof. VI Denesyuk; Vinnytsia. nat. med.un-t them. MI Pirogov, Dept. internal of Medicine № 3. - Kyiv: DZK Center, 2015. - 151 p. : fig., table.
3. Workshop on internal medicine: textbook. pos. / K.M. Amosova, LF Konoplyova, LL Sidorova, GV Mostbauer et al. - Kyiv: Ukrainian Medical Bulletin, 2019. - 416 p.
4. Gastroenterology. Textbook: In 2 T. -Vol.1 / ed. Prof. NV Kharchenko., O.Ya. Babaka. Kirovograd: Polyum, 2016. - 488 p.
5. Gastroenterology. Textbook: In 2 T. -Vol.2 / ed. Prof. NV Kharchenko., O.Ya. Babaka. Kirovograd: Polyum, 2017. - 432 p.
6. Endocrinology: a textbook (PM Bodnar, GP Mikhalchyshyn, YI Komisarenko, etc.), ed. Bodnara, - Type. 4, reworked. and ext. - Vinnytsia: Nova Kniga, 2017. - 456 p.
7. Davidson's Principles and Practice of Medicine23rd Edition. Editors: Stuart Ralston, Ian Penman, Mark Strachan Richard Hobson. Elsevier. - 2018. - 1440p.
8. Endocrinology: textbook / Ed. by prof. Petro M. Bodnar.- 4th ed. updated - Vinnitsa: Nova Knyha, 2017. - 328 p .
9. Principles and Practice of Infectious Diseases. 2-Volume set / JE Bennet, R. Dolin, MJ Blaser - 8th edition: Saunders Publisher, 2019.
10. USMLE Step 2 CK Lecture Notes 2019: Internal Medicine (Kaplan Test Prep). - 2019. - Published by Kaplan Medical. - 474 pages.

7. 3. Information resources

1. https://www.aasld.org/
2. http : // www . acc . org / guidelines # sort =% 40 foriginalz 32 xpostedz 32 xdate 86069% 20 descending
3. https: //www.asn - online.org/education/training/fellows/educational - resources.aspx # Guidelines 4. www.brit - thoracic.org.uk/standards - of - care / guidelines
5. https://cprguidelines.eu/

6. https: //www.diabetes. org
7. https : // www . escardio . org / Guidelines / Clinical - Practice - Guidelines
8. http://www.eagen.org/
9. http : // www . ers - education . org / guidelines . aspx
10. http: //www.enp - era - edta.org/#/44/page/home
11. https : // www . eular . org / recommendations management . cfm
12. http: //www.european - renal - best - practice.org
13. http://www.esmo.org/Guidelines/Haematological - Malignancies
14. https://ehaweb.org/organization/committees/swg - unit / scientific - working - groups / structure - and guidelines /