

MINISTRY OF HEALTH OF UKRAINE  
KHARKIV NATIONAL MEDICAL UNIVERSITY

Department of Internal Medicine № 3 and Endocrinology  
Academic year 2021-2022

**SYLLABUS OF THE EDUCATIONAL COMPONENT**

**«Practical medical training» in internal medicine**

Normative educational component

The form of education is full-time

Area of knowledge "22" Health care

Specialty "222" Medicine

Specialization (if available) \_\_\_\_\_

Educational and professional program of the second (master's) level of higher education


Course IV

The syllabus of the discipline was considered at the meeting of the Department of Internal Medicine № 3 and Endocrinology

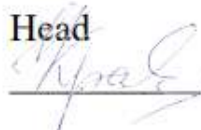
Protocol from  
"30" August 2021 № 14

Approved by the methodical commission of KhNMU on problems of therapeutic profile  
Protocol from  
"31" August 2021 № 1

Head of Department

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Head

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Kharkiv – 2021.

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**Website of the department:** <http://vnmed3.kharkiv.ua/>.

Class schedule: Monday, Tuesday, Wednesday, Thursday, Friday (8.45-12.20 - first shift, according to the schedule).

Location: simulation center of KhNMU, classrooms of the Department of Internal Medicine №3 and endocrinology on the basis of KNP KHOR "Regional Clinical Hospital" (Kharkiv, 13 Nezalezhnosti Ave.).

## INTRODUCTION

**The syllabus of the discipline** "Practical medical training in Internal Medicine" is compiled in accordance with the educational-professional program (hereinafter - EPP) Medicine and the Standard of Higher Education of Ukraine (hereinafter - the Standard), the second (master's) level, areas of knowledge 22 health".

### **Description of the discipline (abstract).**

According to the curriculum, the training of doctors at the educational and qualification level "Master" of the study discipline "Practical medical training in Internal Medicine" is carried out in the IV year (7-8 semesters).

Types of classes according to the curriculum are:

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

The subject of study of "Practical medical training in Internal Medicine" in internal medicine as a discipline is the study of students of propaedeutics of internal medicine, propaedeutics of other clinical disciplines (pediatrics, general surgery), as well as other basic disciplines (medical biology, medical and biological physics, bioorganic and biological chemistry, histology, cytology and embryology, human anatomy, pathomorphology, physiology and pathophysiology, microbiology, virology and immunology, radiology) and integrates with these disciplines. It lays the foundations for students to acquire knowledge of specialized clinical professional and practical disciplines, as well as develops the ability to apply knowledge of pathology of internal organs in the process of further training and professional activity in accordance with the principles of evidence-based medicine.

### **Interdisciplinary connections**

"Practical medical training in Internal Medicine" in internal medicine as a discipline: a) is based directly on the study of students propaedeutics of internal medicine, propaedeutics of other clinical disciplines (pediatrics, general surgery), as well as other basic disciplines (medical biology, medical and biological physics, bioorganic and biological chemistry, histology, cytology and embryology, human anatomy, pathomorphology, physiology and pathophysiology, microbiology, virology and immunology, radiology) and integrates with these disciplines;

b) lays the foundation for students to acquire knowledge in specialized clinical professional and practical disciplines;

c) forms the ability to apply knowledge of pathology of internal organs in the process of further training and professional activity in accordance with the principles of evidence-based medicine.

**Prerequisites and co-requisites of the discipline.** Anatomy, physiology, histology, pathological anatomy, pathological physiology, propaedeutics of internal diseases; clinical pharmacology, surgery, pediatrics.

Moodle page <http://31.128.79.157:8083/course/index.php?categoryid=14>.

## **1. PURPOSE AND TASKS OF THE COURSE**

**1.1 Purpose and objectives of the discipline.** The purpose of teaching the discipline is to consolidate practical skills within the goals defined in the educational and professional training program for the specialties "Medical Affairs", "Pediatrics".

**1.2.** The main task of practice is to consolidate the knowledge and skills gained in the study of internal medicine, surgery, pediatrics and obstetrics (examination of the patient, clinical diagnosis, treatment), and further improvement of practical skills, familiarization with the organization of medical work and working conditions in the city and area, as well as consolidation of skills of sanitary-educational work.

**1.3.** Competences and learning outcomes, the formation of which is facilitated by the discipline.

**1.3.1.** The study of the discipline provides students with the acquisition of **competencies:**

### **integral:**

ability to solve typical and complex specialized tasks and practical problems in professional activities in the field of health care, or in the learning process, which involves research and / or innovation and is characterized by complexity and uncertainty of conditions and requirements;

### **general:**

- ability to apply knowledge in practical situations;
- knowledge and understanding of the subject area and understanding of the profession;
- ability to exercise self-regulation and lead a healthy lifestyle;
- ability to adapt and act in a new situation;
- ability to choose a communication strategy;
- ability to work in a team;
- interpersonal skills;
- ability to communicate in the native language both orally and in writing;
- ability to communicate in another language;
- skills of using information and communication technologies;
- ability to abstract thinking, analysis and synthesis;
- ability to learn and be modernly trained;
- ability to apply knowledge in practical situations;
- ability to evaluate and ensure the quality of work performed;

- determination and persistence in terms of tasks and responsibilities;
- ability to act socially responsibly and socially consciously;
- the desire to preserve the environment.

**special (professional, subject):**

- ability to establish a preliminary clinical diagnosis of the disease;
- skills of collecting information about the patient;
- ability to evaluate the results of laboratory and instrumental research;
- ability to determine the principles and nature of treatment of diseases;
- ability to diagnose emergencies;
- ability to carry out medical and evacuation measures;
- ability to determine the tactics of emergency medical care
- skills of providing emergency medical care
- skills of performing medical manipulations;
- ability to determine the required mode of work and rest in the treatment of diseases;
- ability to determine therapeutic nutrition in the treatment of diseases;
- ability to determine the tactics of contingent of persons subject to dispensary supervision;
- ability to conduct an examination of working capacity;
- ability to keep medical records;
- ability to process state, social, economic and medical information;
- ability to carry out measures for the organization and integration of medical care;
- ability to conduct epidemiological and medical-statistical studies of public health;
- ability to assess the impact of the environment on the health of the population (individual, family, population);
- ability to assess the impact of socio-economic and biological determinants on the health of the individual, family, population;
- ability to analyze the activities of a doctor, department, health care institution;
- ability to take measures to ensure the quality and safety of medical care;
- ability to take measures to improve the efficiency of resource use;
- ability to market medical services.



**1.3.2.** The study of the discipline provides students with the acquisition of the following program learning outcomes:

PRN 1. Possess general and special fundamental and professionally-oriented knowledge, skills, abilities, competencies necessary to perform typical professional tasks related to activities in the medical field in the relevant position.

PRN 2. To have knowledge about psychophysiological features of a person, human health, health support, disease prevention, human treatment, public health.

PRN 3. Apply the acquired knowledge, skills and understanding to solve typical problems of the doctor, the scope of which is provided by lists of syndromes and symptoms, diseases, emergencies, laboratory and instrumental studies, medical manipulations.

PRN 4. Collect information about the patient.

PRN 5. Evaluate the results of surveys, physical examinations, laboratory and instrumental research data.

PRN 6. Establish a preliminary clinical diagnosis of the disease.

PRN 7. To determine the nature, principles of treatment of diseases.

PRN 8. To determine the necessary diet, mode of work and rest in the treatment of diseases.

PRN 9. To determine the tactics of contingent of persons subject to dispensary supervision.

PRN 10. To diagnose emergencies, determine the tactics of emergency medical care.

PRN 15. Perform medical manipulations.

PRN 17. Be able to keep medical records, process state, social and medical information.

PRN 18. Assess and support human health, taking into account the impact of the environment and other health factors.

PRN 20. Apply the acquired knowledge about the existing health care system to optimize their own professional activities and participate in solving practical problems of the industry.

PRN 21. Adhere to the code of ethics of the doctor, which ensures the formation of a specialist with appropriate personal qualities.

The study of the discipline provides students with the following **social skills (Soft skills)**: stress resistance, the ability to adapt to the situation, sociability, the ability to work in a team, the desire to learn, critical thinking, the ability to plan.

## **2. INFORMATION SCOPE OF THE COURSE**

Name of indicators	Field of knowledge, direction of training, educational and qualification level	Characteristics of the discipline	
		full-time education	evening form of study

Number of credits – 1,4	Branch of knowledge 22 "Health" (code and name of the field of knowledge)	Normative (optional)	
Total number of hours - 42	Specialty: 222 "Medicine" (code and name of the specialty)	<b>Year of preparation:</b>	
		4th	--
		<b>Semester</b>	
		7, 8 th	--
Hours for day (or evening) form of study: classroom - 8 independent work of the student - 34	Education level: The second (master's) level	<b>Lectures</b>	
		--	--
		<b>Practical, seminar</b>	
		8 hours	--
		<b>Laboratory</b>	
		-	-
		<b>Individual work</b>	
		34 hours	--
<b>Individual tasks: hours</b>			
Type of control: differential test			

## 2.1. Description of the discipline

### 2.2.1 Lectures

№	Topics	Number of hours	Types of lectures
	In general		

### 2.2.2 Seminars

№	Topics	Number of hours	Teaching methods	Forms of control
1				
2				
	Hours in general			

### 2.2.3 Practical training

№	Topic	Number of hours	Teaching methods	Forms of control
1	Substantiation and formulation of the	8	Presentations, videos,	Current control (survey, testing)

	diagnosis of major diseases of the respiratory, digestive, hematopoietic organs and endocrine system		guidelines for teachers and students for full-time and distance learning	
	Hours in general	8		

#### 2.2.4. Laboratory classes

№	Topic	Number of hours	Teaching methods	Forms of control
1				
2				
	Hours in general			

#### 2.2.5. Individual work

№	Topic	Number of hours	Teaching methods	Forms of control
1	Principles of organization of planned emergency therapeutic care	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (surveys, testing)
2	Survey and physical examination of patients with major diseases of the respiratory, digestive, hematopoietic and endocrine systems	8	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (surveys, testing)
3	Interpretation of laboratory and instrumental research methods in the clinic of	8	Presentations, videos, guidelines for teachers and students for	Current control (surveys, testing)

	internal medicine		full-time and distance learning	
4	Treatment, primary and secondary prevention of major diseases of the respiratory, digestive, hematopoietic and endocrine systems	9	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (surveys, testing)
5	Providing emergency care in an internal medicine clinic	5	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (surveys, testing)
6	Principles of ethics and deontology in the practice of the doctor of the therapeutic department	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (surveys, testing)
	Hours in general	34		

**The list of knowledge acquired by the applicant of higher education in the process of studying the discipline:**

- main clinical syndromes in diseases of internal organs;
- general and "anxious" symptoms of diseases of the internal organs;
- methods of physical examination of patients with pathology of internal organs;
- etiopathogenetic mechanisms of development of diseases of internal organs;
- modern classifications, features of the course and complications of diseases of internal organs;
- modern standards and protocols for diagnosing diseases of internal organs;
- modern treatment algorithms for diseases of internal organs.

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**The list of skills and abilities that the applicant acquires in the process of studying the discipline:**

- Conduct surveys and physical examinations of patients and analyze their results in the clinic
- Identify etiological and pathogenetic factors of the most common diseases.

- Classify and analyze the typical clinical picture of the most common diseases.
- Identify different clinical variants and complications of the most common diseases.
- Identify the leading syndromes and symptoms.
- Justify and formulate a preliminary diagnosis.
- Make a plan for examination of the patient, interpret the results of laboratory and instrumental studies.
- Carry out differential diagnosis, substantiate and formulate a clinical diagnosis.
- Determine the tactics of management (recommendations regarding the regime, diet, treatment, rehabilitation measures) of the patient.
- Carry out non-drug and drug primary and secondary prevention of diseases.
- Determine the prognosis and efficiency of patients with major diseases.
- Diagnose and provide medical care in emergencies and apply the basic algorithms of intensive care.
- Conduct examinations of pregnant women and determine the tactics of childbirth.
- Perform medical manipulations.
- Keep medical records.
- Demonstrate mastery of moral and deontological principles of a medical professional and the principles of professional subordination.

*Patient supervision involves:*

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

### **3. EVALUATION CRITERIA**

**3.1.** Evaluation of educational success of students is carried out on the basis of the current "Instructions for evaluating the educational activities of students of KhNMU".

Forms of control and assessment system are carried out in accordance with the requirements of the internship program and the Instruction on assessment of educational activities at the European credit transfer system of the educational process in KhNMU, approved by the order of KhNMU from 22.02.2016 № 52.

The grade for industrial practice in therapy is defined as the sum of points that the student received during the implementation of practical skills, according to the list defined by the practice program from 70 to 120 points.

The maximum number of points assigned to students when taking a differentiated test - 80, the minimum - 50 points.

The current control of students is carried out by supervisors - teachers of practice.

Ongoing monitoring is carried out in accordance with the specific objectives of the program and is assessed on a daily basis according to the traditional assessment. The final score for IPA for practice is defined as the arithmetic mean and is converted into a multi-point scale according to table. 1

**Table 1.**

**Recalculation of the average score for current activities in a multi-point scale**

4- score scale	120- score scale	4- score scale	120- score scale
5	120	3.91-3,94	94
4.95-4,99	119	3.87-3,9	93
4.91-4,94	118	3.83- 3,86	92
4.87-4,9	117	3.79- 3,82	91
4.83-4,86	116	3.74-3,78	90
4.79-4,82	115	3.7- 3,73	89
4.75-4,78	114	3.66- 3,69	88
4.7-4,74	113	3.62- 3,65	87
4.66-4,69	112	3.58-3,61	86
4.62-4,65	111	3.54- 3,57	85
4.58-4,61	110	3.49- 3,53	84
4.54-4,57	109	3.45-3,48	83
4.5-4,53	108	3.41-3,44	82
4.45-4,49	107	3.37-3,4	81
4.41-4,44	106	3.33- 3,36	80
4.37-4,4	105	3.29-3,32	79
4.33-4,36	104	3.25-3,28	78
4.29-4,32	103	3.21-3,24	77
4.25- 4,28	102	3.18-3,2	76
4.2- 4,24	101	3.15- 3,17	75
4.16- 4,19	100	3.13- 3,14	74
4.12- 4,15	99	3.1- 3,12	73
4.08- 4,11	98	3.07- 3,09	72
4.04- 4,07	97	3.04-3,06	71
3.99-4,03	96	3.0-3,03	70
3.95- 3,98	95	Less 3	Not enough

One of the activities of the student and his control by the head of practice is keeping a Diary of medical practical training, which is filled out by the student after each day of practice and signed by the head of industrial practice, head of the department and / or head of medical base. At the end of the internship, the student fills out a consolidated digital report on the work performed. The presence of a completed and certified signature by the practice leaders of the Diary and the Consolidated Digital Report is mandatory for the admission of the student to the differentiated test.

Practitioners analyze the work of students during the internship (the student should not have practice days), the quality of the Diary (justification and formulation of the diagnosis, determining the plan of examination and treatment), the quality of clinical, laboratory and instrumental diagnostics, participation in emergency medical care care, application of the principles of ethics and deontology in the practice of medicine. Completion of the Consolidated digital report on internal medicine gives the chance to estimate correctly current educational activity of the student, thus the minimum quantity of points of the practical skills executed by the student makes 70 points, the maximum - 120 points. Upon receiving 70 points for practical skills, the student is admitted to a differentiated test.

### **Differential credit.**

Students who have completed the program of practical training in internal medicine, have properly executed reporting documents (Diary and Consolidated digital report) are admitted to the differentiated test.

Differentiated credit of industrial medical practice of fourth-year students provides demonstration of skills and practical skills in accordance with the list defined by the program of practice, the theoretical part, solving test problems, prescribing.

The minimum number of points that a student can get during a differentiated test is 50, the maximum - 80 points, while the student performs: practical skills, which are assessed by the criteria for assessing practical skills (Table 2) and receives from 10 to 16 points.

**Table 2.**

**Criteria for assessing practical skills**

Amount of skills	«5»	«4»	«3»	The answers to the tickets of the practical part	For each practical skill the student receives from 5 to 8 points, which corresponds to: "5" - 8 points; "4" - 6.5 points; "3" - 5 points.
1	8	6,5	5		
2	8	6,5	5		
<b>Total points</b>	<b>16</b>	<b>13</b>	<b>10</b>		

•The theoretical part of the differentiated test is the answer to the ticket, which contains 4 questions concerning the main diseases of the respiratory, digestive, hematopoietic organs and endocrine system. Assessment is

conducted according to the criteria for assessing theoretical knowledge (Table 3) and the student receives from 20 to 32 points

**Table 3.**

**Criteria for assessing theoretical knowledge**

Number of questions	«5»	«4»	«3»	Oral answer for tickets, which include the theoretical part of the discipline	For each answer the student receives from 5 to 8 points, which is responsible: «5» - 8 points; «4» - 6,5 points; «3» - 5 points.
1	8	6,5	5		
2	8	6,5	5		
3	8	6,5	5		
4	8	6,5	5		
<b>Total points</b>	<b>32</b>	<b>26</b>	<b>20</b>		

- the solution of two basic (anchor) test tasks LII "Step - 2", are evaluated according to the criteria for evaluating test tasks (Table 4) and receive from 10 to 16 points

**Table 4.**

**Criteria for evaluating test tasks**

Amount of skills	«5»	«4»	«3»	The answer to the tickets of the practical part	For each practical skill the student receives from 5 to 8 points, which is responsible: «5» - 8 points; «4» - 6,5 points; «3» - 5 points.
1	8	6,5	5		
2	8	6,5	5		
<b>Total points</b>	<b>16</b>	<b>13</b>	<b>10</b>		

- writing two prescriptions, evaluated according to evaluation criteria (Table 5) and receives from 10 to 16 points

**Table 5.**

**Criteria for evaluating prescriptions**

Amount of skills	«5»	«4»	«3»	The answer to the tickets of the practical part	For each practical skill the student receives from 5 to 8 points, which is responsible: «5» - 8 points; «4» - 6,5 points; «3» - 5 points.
1	8	6,5	5		
2	8	6,5	5		
<b>Total points</b>	<b>16</b>	<b>13</b>	<b>10</b>		

**Grades for the discipline:**

Grades for the practical training are received only by students, who have completed the program, have properly completed report documents (Diary and Consolidated Digital Report) and received at least 70 points for current activities, as well as passed a differentiated test with the score at least 50 points. Grades for the practical training are the sum of points for current activities and differentiated credit.



The maximum number of points that a student can receive for practice is 200. Grades "unsatisfactory" are given to students who were admitted to the differentiated test, but did not pass it and who were not admitted to the differentiated test.

## COVER PAGE OF THE DIARY

**Kharkiv National Medical University**  
**Department of internal medicine № 3 and endocrinology**

### DIARY

**Of student's practical training in internal medicine** \_\_\_\_\_  
**Surname**

**First name** \_\_\_\_\_

**Second name** \_\_\_\_\_

**Faculty** \_\_\_\_\_

**Course**

**Group** \_\_\_\_\_

**Direct supervisor (from the base hospital)**

**Chief supervisor (from the base hospital)** \_\_\_\_\_ (signature)

<b>Date, time</b>	<b>The content of the performed activities</b>	<b>Completed practical skill</b>
	Participation in the organizational meeting	
	Watching the performing of upper endoscopy, (or abdominal ultrasonography, CT scan, ph-metry)	Discussion on the obtained endoscopic picture of the esophageal, gastric and duodenal mucosa, clinical interpretation of the results of endoscopy (or abdominal ultrasonography, CT scan, ph-metry)
	Watching the performing of spirometry	Discussion on the obtained results of pulmonary function test, clinical interpretation of

		the results of spirometry
	<p>Discussion of clinical cases (5 patients).</p> <p>1. Patient N., 60 years old. Diagnosis: Bronchial asthma, persistent severe form. Diffuse pneumosclerosis. Pulmonary emphysema. Chronic respiratory failure II stage.</p> <p>Diagnosis is substantiated by ... the results of clinical and instrumental examinations ... Treatment plan...</p> <p>2. Patient V., 55 years old. Diagnosis: Hp - positive acute duodenal ulcer, moderate severity, exacerbation phase, chronic duodenitis.</p> <p>This diagnosis is evidenced by ... symptoms and results of endoscopic examination ... Treatment plan.</p>	<p>Physical examination of 5 patients. Taking case history of the patient who was hospitalized for the first time. Evaluation of the results of clinical, biochemical and instrumental examinations.</p>

**Consolidated digital progress report  
of practical training in internal medicine (hospital-based)**

Student \_\_\_\_\_ 4th year  
VI Medical Faculty \_\_\_\_\_ Group \_\_\_\_\_

<b>№</b>	<b>List of skills and activities</b>	<b>Number of activities</b>	<b>Score in points</b>
<b>1</b>	Examination of the patient, substantiation and formulation of the clinical diagnosis, registration of case histories.	<b>5</b>	
<b>2</b>	Daily curation of patients in the hospital.	5-8	
<b>3</b>	Duty in the intensive care unit	1	
<b>4</b>	Participation in the provision of urgent medical care in emergency situations with acute respiratory failure; biliary colic, diabetic coma, thyroid crisis, acute adrenal insufficiency	3-5	
<b>5</b>	Blood pressure measurement	15-30	
<b>6</b>	Evaluation of clinical, biochemical and bacteriological studies of blood, urine, feces, sputum, gastric juice and duodenal contents, pH-metry.	20-30	
<b>7</b>	ECG analysis	10-20	
<b>8</b>	Evaluation of spirometry results	1-3	
<b>9</b>	Evaluation of chest X-ray results	10-12	
<b>10</b>	Evaluation of endoscopy results	3-8	
<b>11</b>	Evaluation of the results of echocardiography, abdominal ultrasonography, sonography of the carotid arteries.		

Signature of the teacher of the department \_\_\_\_\_

After completing the discipline, the person, who is responsible for the organization of educational and methodical work at the department or the teacher puts the student the number of points and the corresponding grade in the credit book and fill in the progress of students in the discipline in the form U-5.03B - credit.

Grades "unsatisfactory" are given to students who were admitted to the test, but did not pass it and who were not admitted to the test.

### **3.2. Test questions:**

- Diabetes mellitus, classification, etiology, pathogenesis, clinic, diagnosis: algorithms and diagnostic protocols.
- • Type 1 and type 2 diabetes, modern methods of therapy: algorithms and treatment protocols.
- • Acute and chronic complications of diabetes. Features of the course and treatment of diabetes mellitus in surgical patients during pregnancy: algorithms and protocols for the treatment of hypoglycemic coma, diabetic ketoacidotic coma, diabetic neuropathy, diabetic nephropathy, retinopathy, diabetic foot syndrome.
- • 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: algorithms for diagnosis and treatment of iodine deficiency diseases, hypothyroidism, thyroiditis. Тиреотоксикоз. Клінічні форми. Діагностика, лікування. Рак щитоподібної залози. Класифікація, клініка, діагностика, лікування.
- Diseases of the hypothalamic-pituitary system. Adiposity. Diseases of the gonads: algorithms for the diagnosis and treatment of somatotrophic insufficiency, Itsenko-Cushing's disease, acromegaly, hyperprolactinemia, diabetes mellitus, hypopituitarism, obesity, gonadal diseases.
- 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.
- 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 of various forms of anemia. Transfusion of blood components and blood substitutes. Primary and secondary prevention. Forecast and efficiency.
- 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. Supportive therapy. Bone marrow transplantation. Primary and secondary prevention. Forecast and efficiency.

- 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.
- Chronic bronchitis. Definition. The importance of smoking, environmental, occupational factors and infection in the development of chronic obstructive pulmonary disease. 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.
- Bronchial asthma. Definition. Etiology, features of pathogenesis. Classification. Clinical manifestations, data of laboratory and instrumental research methods. Differential diagnosis. Complication. Treatment. Emergency care for asthma attacks. Primary and secondary prevention. Forecast and efficiency.
- Pneumonia. Definition. Etiology. Classification. Clinical manifestations and features of the course depending on the pathogen. Data of laboratory and instrumental research 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.
- 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.
- 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.
- Dyspepsia. Determination of dyspepsia. Etiology and pathogenesis. The role of *N. rulari* 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.
- Chronic gastritis Definition, etiology and pathogenesis of chronic gastritis. The role of *N. rulari* in the occurrence of chronic gastritis. Classification. Clinical manifestations, data of laboratory and instrumental research methods. The value of endoscopic (with morphology) research. Modern approaches to the treatment of various types of chronic gastritis. Primary and secondary prevention. Forecast and efficiency.
- 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). Primary and secondary prevention. Forecast and efficiency.

- 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.
- Inflammatory bowel disease. Nonspecific 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 options. Roman diagnostic criteria. Differential diagnosis. Treatment of various forms. Primary and secondary prevention. Forecast and efficiency.
- Chronic hepatitis. Definition. Classification. The role of persistence of the virus, toxic and medicinal agents, immune disorders and alcohol. Differential diagnosis. Complication. Features of treatment of various forms. Primary and secondary prevention. Forecast and efficiency.
- Cirrhosis of the liver. Definition. Significance of viral infection, nutritional factors, alcohol, toxic substances and immune disorders. Classification. Features of clinical manifestations and diagnosis of different options. Differential diagnosis. Liver failure and other complications. Urgent therapy for complications. Primary and secondary prevention. Forecast and efficiency.
- Obesity and its consequences. The urgency of the problem. Modern approaches to medical and non-medical treatment.

#### **4. DISCIPLINE POLICY**

To achieve the goals of training and successfully complete the course, it is necessary: from the first day to join the work; attend classes regularly; read the material before its consideration in a practical lesson; not to be late and not to miss classes; come dressed in a medical gown, have changeable shoes, carry a phonendoscope, notebook, pen; perform all necessary tasks and work every day; be able to work with a partner or in a group; ask for help and get it when you need it.

Academic mobility is provided. Students can discuss different tasks, but their performance is strictly individual. It is not allowed to write off, use various software, tips, use a mobile phone, tablet or other electronic gadgets during the lesson. No delays are allowed. Passes are worked out hour by hour. Admission and

consultations are held daily from 08.00 to 17.00, on Saturdays in accordance with the "Regulations on the procedure for students to study" from 07.12.2015 № 415. Students with special needs should meet with the teacher or warn him before the start of classes, at the request of the student it can be done by the head of the group. If you have any questions, please contact the teacher.

## **5. ACADEMIC INTEGRITY**

At the Department of Internal Medicine № 3 and Endocrinology, adherence to academic integrity as a mandatory component of the internal quality assurance system of the educational program is necessary. Adherence to academic integrity is in accordance with applicable law:

- Order №305 of 27.08.19 on the organization of the educational process in KhNMU.
- • Code of Academic Integrity of KhNMU.
- • Order № 165 of 02.07.2020 on measures to develop the system of academic integrity in KhNMU.
- • Regulations on academic integrity.
- • Regulations on the Commission for Academic Integrity, Ethics and Conflict Management of KhNMU.
- • Recommendations of the National Agency for Quality Assurance in Higher Education.
- • Law of Ukraine “On Education”, Article 42.

## **6. RECOMMENDED LITERATURE**

### **Basic**

- 1) Gastroenterology. Textbook: In 2 T. -Vol.2 / ed. Prof. NV Kharchenko., O.Ya. Babaka. -Кировоград: Поліум, 2017. - 432 с.
- 2) Endocrinology: textbook (PM Bodnar, GP Mikhalchyshyn, YI Komisarenko, etc.), Ed. Professor P.M. Bodnara, - Type. 4, reworked. and ext. - Vinnytsia: Nova Kniga, 2017. - 456 p.
- 3) Order of the Ministry of Health of Ukraine dated 21.06.2016 13613 "On approval and implementation of medical and technological documents for the standardization of medical care for viral hepatitis B". Unified clinical protocol of primary, secondary (specialized) medical, tertiary (highly specialized) care "Viral hepatitis B in adults".
- 4) Order of the Ministry of Health of Ukraine dated 18.07.2016 №729 "On approval and implementation of medical and technological documents for standardization of medical care for viral hepatitis C". Unified clinical protocol of primary, secondary (specialized) medical, tertiary (highly specialized) care "Viral hepatitis C in adults".
- 5) Unified protocol for providing medical care to adult patients with community-acquired pneumonia. Nosocomial pneumonia in adults: etiology, pathogenesis, classification, diagnosis, antibacterial therapy and prevention - Kyiv, National Academy of Medical Sciences of Ukraine - 2016.

- 6) Davidson's Principles and Practice of Medicine 23rd Edition. Editors: Stuart Ralston, Ian Penman, Mark Strachan Richard Hobson. Elsevier. - 2018. – 1440p.
- 7) Endocrinology: textbook /Ed. by prof. Petro M. Bodnar.- 4th ed. updated – Vinnitsa: Nova Knyha, 2017. – 328 p.
- 8) USMLE Step 2 CK Lecture Notes 2017: Internal Medicine (Kaplan Test Prep). - 2016. - Published by Kaplan Medical. - 474 pages.

### **Auxiliary**

1. Standards for providing medical care to patients with pathological conditions of the thyroid and thyroid glands under the influence of negative environmental factors (third edition, extended) / Ed. O.B. Kaminsky. - Kharkiv: Urigh, 2017. – 312c.
2. Harrison's Endocrinology. Ed. by J. Larry Jameson, Mc Graw – Hill., New York, Chicago, Toronto. e.a. 4rd edition, 2016. - 608 p.

## **7. INFORMATION RESOURCES**

Moodle page <http://31.128.79.157:8083/course/index.php?categoryid=14>.

1. <https://www.aasld.org/>
2. <http://www.acc.org/guidelines#sort=%40foriginalz32xpostedz32xdate86069%20descending>
3. <https://www.asn-online.org/education/training/fellows/educational-resources.aspx#Guidelines>
4. <https://ehaweb.org/organization/committees/swg-unit/scientific-working-groups/structure-and-guidelines/>
5. <http://www.gastro.org/guidelines>
6. [www.ginasthma.org](http://www.ginasthma.org)
7. <http://goldcopd.org>
8. <http://inephrology.kiev.ua/>
9. [http://www.ifp.kiev.ua/index\\_ukr.htm](http://www.ifp.kiev.ua/index_ukr.htm)
10. <http://kdigo.org/home/guidelines/>
11. <http://mtd.dec.gov.ua/index.php/uk/>
12. <https://www.thyroid.org>
13. <https://www.ueg.eu/guidelines/>
14. <http://ukrgastro.com.ua/>
15. Website of the Center for Public Health of the Ministry of Health of Ukraine: <http://phc.org.ua/>

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Head of the Department of Internal Medicine №3  
and endocrinology,  
d. med. n., professor

L.V. Zhuravliova