

MINISTRY OF HEALTH OF UKRAINE
KHARKIV NATIONAL MEDICAL UNIVERSITY

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

SYLLABUS OF THE COURSE
«Current issues of endocrinology»

Elective discipline

The form of education is full-time

Area of knowledge "22" Health care

Specialty "222" Medicine

Specialization (if available) _____

Educational and professional program Medicine of the second level of higher education


Course VI

The syllabus was approved at the meeting of the Department of Internal Medicine №3 and endocrinology

Protocol from

“30” August 2021 № 14

Head of the Department

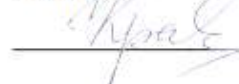
 prof. Zhuravlyova L.V.

Approved by the methodical commission of KhNMU on problems of professional training of therapeutic profile

Protocol from

“31” August 2021 № 1

Head

 prof. Kravchun P.G.

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- 3. Sokolnikova Nelia Volodymyrivna - Candidate of Medical Science, Associate Professor of Department of Internal Medicine No.3 and Endocrinology.*

INFORMATION ABOUT TEACHERS TEACHING THE EDUCATIONAL COMPONENT

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Class schedule: Monday, Tuesday, Wednesday, Thursday, Friday (8⁴⁵-12²⁰ - first shift, 12²⁵ -15⁵⁰ – second shift according to the schedule).

Location: classrooms of the Department of Internal Medicine №3 and Endocrinology based on Kharkiv Regional Clinical Hospital (Kharkiv, Nezalezhnosti Ave, 13).

INTRODUCTION

Syllabus of the course «Current Issues of Endocrinology» compiled in accordance with the educational and professional program (EPP) «Medicine» Standard of Higher Education of Ukraine (the Standard), the second level of higher education, field of knowledge 22 "Health Care".

Description of the discipline (Abstract)

According to the curriculum, the training of doctors at the educational and qualification level "Master" of the study discipline «Current Issues of Endocrinology» is carried out in the 6th year (11-12 semesters).

Types of classes according to the curriculum are:

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

The subject of study "Current issues of endocrinology" as a discipline is the study of students of propedeutics of internal medicine, propedeutics 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

"Current issues of endocrinology" as a discipline:

- a) is based directly on the study of students of propedeutics of internal medicine, propedeutics of other clinical disciplines (pediatrics, general surgery), as well as other basic disciplines (medical biology, medical and biological physics, bioorganic and biological, 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, propedeutics 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. The purpose of studying the discipline "Current issues of Endocrinology" is to acquire and deepen knowledge, skills, abilities and other competencies in internal medicine required in professional activities, which are established on the basis of educational and professional program.

1.2. The main tasks of studying the discipline " Current issues of Endocrinology " is the acquisition by students of competencies in accordance with the general and professional competencies of the educational-professional program «Medicine» of the second (master's) level of higher education in 222 «Medicine». To master the qualification "Master of Medicine" is necessary: the ability to determine the necessary list of laboratory and instrumental studies and evaluate their results, preliminary and clinical diagnosis of the disease, determining the necessary mode of work and rest, nutrition in the treatment of diseases, defining principles and the nature of treatment of diseases, performing medical manipulations, diagnosing emergencies and providing emergency medical care, maintaining medical records.

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:**

the ability to solve typical and complex specialized problems 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 self-regulate and lead a healthy lifestyle;
- Ability to adapt and act in a new situation;

- Ability to choose 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;
- Certainty and persistence in terms of tasks and responsibilities;
- Ability to act socially responsibly and publicly consciously;
- The desire to preserve the environment.
- **special (professional, subject):**
 - Ability to establish a preliminary clinical diagnosis of the disease;
 - Skills of gathering information about the patient;
 - Ability to evaluate the results of laboratory and instrumental research;
 - Ability to determine the principles and nature of disease treatment;
 - Ability to diagnose emergencies;
 - Ability to carry out medical and evacuation measures;
 - Ability to determine the tactics of emergency medical care
 - Emergency medical skills
 - 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 take measures to organize and integrate 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 conduct marketing of medical services.

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

PLO 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.

PLO 2. Have knowledge of psychophysiological features of man, human health, health support, disease prevention, human treatment, public health.

PLO 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 research, medical manipulations.

PLO 4. Collect information about the patient.

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

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

PLO 7. Determine the nature, principles of treatment of diseases.

PLO 8. Determine the necessary diet, work and rest in the treatment of diseases.

PLO 9. Determine the tactics of contingent of persons subject to dispensary supervision.

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

PLO 11. Perform medical manipulations.

PLO 12. Be able to keep medical records, process government, social and medical information.

PLO 13. Assess and support human health, taking into account the impact of the environment and other health factors.

PLO 14. 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.

PLO 15. Adhere to the code of ethics of the doctor, which ensures the formation of a specialist with appropriate personal qualities.

1.3.3 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 and 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 - 4	Field of knowledge 22 "Health care" <small>(code and name of the field of knowledge)</small>	Normative (optional)	
The total number of hours - 120	Specialty: 222 "Medicine" <small>(code and name of the specialty)</small>	Year of study	
		6th	-
		Semester	
		11,12th	-
Hours for day (or evening) form of study: classrooms - 20 individual student work - 100	Education level: <u>Second (master's) level</u>	Lectures	
		40 hours	-
		Practical, seminars	
		20 hours	-
		Laboratory	
		-	-
		Individual work	
		100 hours	-
Individual tasks: hours			
Type of control: credit			

2.1. Description of the discipline

2.2.1 Lectures

№	Name of topics	Number of hours	Types of lectures
	Together		

2.2.2 Seminars

№	Name topics	Number of hours	Methods of teaching	Forms of control
1				
2				
	Hours in general			

2.2.3 Practical classes

№	Name of topics	Number of hours	Methods of teaching	Forms of control
1.	Current aspects of diabetology. Classification, modern views on the pathogenesis, approaches to the diagnosis and treatment of type 1 and 2 diabetes. Chronic complications of diabetes mellitus: classification, pathophysiology, principles of diagnosis, treatment and prevention.	5	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
2.	Pathophysiological basics, approaches to diagnosis and treatment of the most common thyroid diseases. Diseases of the adrenal glands, modern approaches to diagnosis and treatment. Hypercorticism syndrome.	5	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
3.	Clinical and diagnostic criteria and features of treatment tactics in arterial hypertension of endocrine origin. Modern principles of diagnosis and treatment of diseases of the hypothalamic-pituitary system. Autoimmune polyendocrine syndromes: classification, clinical and diagnostic criteria, approaches to treatment.	5	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
4.	Acute endocrine pathology. Pathophysiological basis, features of diagnosis and treatment of emergencies in the endocrinology clinic. Test.	5	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
	Together	20		

Individual work

№ s / n	Name of topics	Number of hours	Methods of teaching	Forms of control
1	General characteristics of hormones and mechanisms of their action. Neuroendocrine-immune regulation of the body.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)

2	Modern classification of diabetes mellitus. Laboratory criteria for diagnosis and compensation of the disease.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
3	Features of the clinical course and treatment of type 1 diabetes mellitus.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
4	Features of the clinical course and treatment of type 2 diabetes.	5	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
5	Diabetic microangiopathy: pathogenesis, classification, clinical forms, treatment and prevention.	5	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
6	Diabetic macroangiopathy: pathogenesis, main localizations, clinic, treatment and prevention.	5	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
7	Diabetic neuropathy: classification, pathogenesis, clinic, differential diagnosis, approaches to treatment.	5	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
8	Diabetic foot syndrome. Clinical forms, diagnosis, treatment.	4	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
9	Management of patients with diabetes	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing))
10	Gestational diabetes mellitus: clinical and diagnostic criteria and medical tactics.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
11	Hypoglycemic conditions: pathophysiology, clinic, differential diagnosis, treatment and prevention tactics.	4	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)

12	Diabetic ketoacidotic coma: pathogenesis, diagnosis, differential diagnosis, treatment tactics and prevention.	4	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
13	Hyperosmolar and lactic acidic coma: pathogenesis, clinic, differential diagnosis, principles of treatment.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
14	Iodine deficiency diseases: epidemiology, pathogenesis, clinic, diagnosis, treatment, prevention.	3	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
15	Modern principles of rational diagnosis and monitoring of thyroid diseases.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
16	Nodular non-toxic goiter: classification, etiology, clinical picture, approaches to diagnosis and treatment.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
17	Thyrotoxicosis: etiology, pathogenesis, clinic, complications, diagnosis, differential diagnosis of treatment.	4	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
18	Hypothyroidism: classification, etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
19	Thyroiditis: classification, etiology, pathogenesis, clinic, differential diagnosis, treatment.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
20	Pathology of the thyroid gland and pregnancy: features of the course, diagnosis, treatment.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)

21	Urgent conditions caused by thyroid disease.	3	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (examination, testing)
22	Diagnostic criteria, features of a course, differential diagnostics and treatment of pathology of the thyroid gland.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)
23	Obesity as a component of the metabolic syndrome. Classification, etiology and pathogenesis. Diagnostic criteria, differential diagnosis, prevention and treatment.	4	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)
24	Acromegaly and gigantism. Etiology, pathogenesis, clinic, differential diagnosis, principles of treatment.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)
25	Pangipopituitarism. Pathogenesis, clinic, differential diagnosis, principles of treatment.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)
26	Hyperprolactinemic syndrome. Etiology, pathogenesis, clinic, differential diagnosis, treatment.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)
27	Itsenko-Cushing disease. Etiology, pathogenesis, clinic, differential diagnosis, treatment.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)
28	Diabetes insipidus: etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)

29	Pheochromocytoma: pathogenesis, clinic, differential diagnosis, principles of treatment.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)
30	Chronic insufficiency of the adrenal glands. Etiology, clinic, diagnosis, treatment.	3	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)
31	Urgent conditions in disorders of calcium homeostasis and acute adrenal insufficiency.	2	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)
32	Endocrine aspects of pathology of sexual glands in women and men. Classification, diagnostic methods, possibilities of correction.	4	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)
33	Syndromes of multiple endocrine neoplasia: classification, clinical and diagnostic criteria, approaches to treatment.	3	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)
34	Hormonally active tumors of digestive tract and pancreas.	3	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)
35	Pituitary tumors: modern classification, general approaches to diagnosis and treatment.	3	Presentations, videos, guidelines for teachers and students for full-time and distance learning	Current control (survey, testing)
	Together	100		

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".

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

- 1) control of the initial level of knowledge by means of the tests made in a format of a question with 5 options of the answer, from which 1 is correct;

- 2) examination of students on the topic of the lesson;
- 3) management of 1-2 patients with diseases and conditions corresponding to the subject of the lesson, followed by discussion of the correctness of diagnosis, differential diagnosis and treatment with the use of evidence-based medicine and in accordance with National and European guidelines and protocols;
- 4) consideration of the results of additional research methods (laboratory and instrumental) used in the diagnosis and differential diagnosis, consideration of which is provided by the topic of practical training;
- 5) control of the final level of knowledge on the test tasks made in the format of KROK-2.

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

Current control (CC) is conducted by the teacher of the academic group at the last lesson and provides for the consideration of current activity. Assimilation of the topic (current control) is controlled in a practical lesson in accordance with specific goals. The following tools are used to assess the level of preparation of students: computer tests, solving situational problems, interpretation and evaluation of laboratory results, analysis and evaluation of instrumental research results and parameters that characterize the functions of the human body, control the acquisition of practical skills. The final lesson (FL) must be conducted in accordance with the program of the discipline during the semester on schedule, during classes. Acceptance of software is carried out by the teacher of the academic group. Assessment is carried out according to the traditional 4-point system: "excellent", "good", "satisfactory" and "unsatisfactory". The conversion of the average grade for current educational activities into a multi-point scale is carried out in accordance

with the "Instructions for assessing the educational activities of students..." or the average grade (to the nearest hundredth) for current activity teacher automatically receives using the electronic journal. The minimum number of points that a student must score for the current activity during the study of the section is 70 points, the maximum number of points - 120 points.

Assessment of students' independent work. Independent work of students, which is provided by the topic of the lesson along with classroom work, is assessed during the current control of the topic in the relevant lesson.

Assessment of individual student tasks is carried out under the conditions of the teacher's tasks (report of the abstract in a practical lesson, report with a presentation in a practical lesson, report at scientific and practical conferences of the department, university, writing abstracts, articles, participation in the All-Ukrainian Olympiad). Points (not more than 10) are added as incentives. The total amount of points for current educational activities may not exceed 120 points.

The test for the discipline in the autumn semester is conducted by the teacher of the academic group at the last lesson. According to the results of the semester, the teacher automatically receives the average grade (to the nearest hundredth) for the current activity with the help of the electronic journal and translates it into points with the help of (Table 1). The grade is determined in points from 70 to 120 and marked - "worked out", "not worked out".

Organization of final control - differentiated offset. Admission to the differentiated test is determined in points of current educational activity, namely: min - 70, max - 120 points. Differentiated credit is made by the teacher of the academic group or on commission in case of disagreement of the student with the results of certification. If the exam is not passed, the dates of rescheduling during the holidays are set, until the beginning of the next semester. Directly differentiated credit is estimated from - 50 to - 80 points.

Conducting a differentiated test:

1. Solving a package of test tasks, which includes basic test tasks of "KROK -2" in the amount of 30 tests. Evaluation criterion - 95-100% of correctly solved tasks, "passed - failed".
2. Assessment of the acquisition of practical skills (assessment criteria - "performed" or "failed").
3. Assessment of theoretical knowledge on the tickets drawn up at the department, which contain five theoretical questions from the sections of the discipline, which were studied during the academic year, the criteria for assessing theoretical knowledge according to table 1.

Table. 1. Assessment of theoretical knowledge

Number of questions	«5»	«4»	«3»	Oral answer for questions, which include the theoretical part of the discipline	For each answer the student receives from 10 to 16 points, which corresponds to: "5" - 16 points; "4" - 13 points; "3" - 10 points.
1	16	13	10		
2	16	13	10		
3	16	13	10		
4	16	13	10		
5	16	13	10		
	80	65	50		

Grade from the discipline

The grade in the discipline is defined as the sum of points: the arithmetic mean of points for 2 semesters, during which the discipline was studied, which are translated into a 120-point scale ECTS (Table 2) in the autumn and spring semesters. Then the number of points that the student received during the differentiated test is added to them.

The maximum number of points that a student can score for studying the discipline - 200 points, including the maximum number of points for current educational activities - 120 points. The minimum number of points is 120.

Table. 2. Correspondence of estimates on a 200-point scale, four-point (national) scale and ECTS scale

Rating on a 200-point scale	Assessment on the ECTS scale	Score for four-point (national) scale
180–200	A	Excellent
160–179	B	Very good
150–159	C	Good
130–149	D	Satisfactory
120–129	E	Sufficient
Less than 120	F, Fx	Fail

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

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 test.

3.2. Test questions:

- Diabetes mellitus, classification, etiology, pathogenesis, clinic, diagnosis: algorithms and diagnostic protocols.
- Type 1 and type 2 diabetes mellitus, 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.

- Thyrotoxicosis. Clinical forms. Diagnosis, treatment. Thyroid cancer. Classification, clinic, diagnosis, treatment.
- Diseases of the hypothalamic-pituitary system. Obesity. 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. Prognosis 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. Prognosis and efficiency.
- Chronic leukemia. 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. Prognosis 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. Prognosis 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. Prognosis 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. Prognosis 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. Prognosis 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 H.pylori 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. Prognosis and efficiency.

- Chronic gastritis Definition, etiology and pathogenesis of chronic gastritis. The role of H.pylori 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. Prognosis 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). The value of instrumental and laboratory diagnostic methods. Methods of diagnosis of Hp infection. Tactics of patient management. Eradication therapy, control of eradication efficiency. Drug therapy of Hp-negative ulcers. Indications for surgical treatment. Primary and secondary prevention. Prognosis 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. Prognosis 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. Prognosis and efficiency.

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

- 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 hepatitis, chronic viral, toxic (drug) 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. Prognosis 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. Differentiated therapy. Urgent therapy for complications. Primary and secondary prevention. Prognosis and efficiency.

- 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.

4. DISCIPLINE POLICY

To achieve the goals of training and successfully complete the course, it is necessary to: join the work from the first day; attend lectures regularly; read the material before its consideration in a practical lesson; not to be late and not to miss classes; come to the department dressed in a medical gown, have changeable shoes, have 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, interchangeability of credit credits (volume of 1 credit 30 hours) is provided. Students can discuss different tasks, but their performance is strictly individual. You are not allowed to write off, use any kind of software, tips,

use a mobile phone, tablet or other electronic gadgets during the lesson. Students are not allowed to be late for practical classes. Omissions of practical classes are worked out hour by hour to the teacher of group or the next teacher. Reception of tests 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. Observance of academic integrity takes place according to the current legislation:

- Regulation №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 on 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. -Kirovograd: Polyum, 2017. - 432 p.

2) Endocrinology: a 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 №613 "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 the 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.

Additional literature:

1. Standards for providing medical care to patients with pathological conditions of the thyroid and parathyroid glands under the influence of negative environmental factors (third edition, extended) / Ed. O.B. Kaminsky. - Kharkiv: Uright, 2017. - 312p.

2. Harrison's Endocrinology. Ed. by J. Larry Jameson, Mc Graw - Hill., New York, Chicago, Toronto. ea 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
7. <http://goldcopd.org>.
8. <http://inephrology.kiev.ua/>
9. 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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