

MINISTRY OF HEALTH OF UKRAINE
BUKOVINIAN STATE MEDICAL UNIVERSITY

"A"
Vice-rector for scientific and pedagogical work
Associate Professor _____

" 27 " 08

**STUDENT GUIDE
(SYLLABUS)
of studying the discipline**

"Internal Medicine, including clinical pharmacology, infectious diseases and epidemiology"

Field of knowledge _____ 22 Healthcare
Specialty _____ 221 Dentistry
Educational degree _____ master
Educational year _____ 4
Form of study _____ full-time
Department _____ propedeutic of internal medicine

Approved at the methodical session of the department of propedeutic of internal medicine
"08" June 2021 (Protocol № 23).

Head of the Department _____ (T.O. Ilashchuk)

Approved by the subject methodical commission on therapeutic disciplines
"29" June 2021 (Protocol №13).

Chairman of the subject methodical
commission on therapeutic disciplines



V.K. Tashchuk

1. GENERAL INFORMATION ABOUT SCIENTIFIC AND PEDAGOGICAL WORKERS WHO TEACH THE SUBJECT

Department	<u>Propedeutic of internal medicine</u>
Surname, name of scientific and pedagogical staff, scientific degree, academic status	Ilaschuk Tetiana – Head of the Department, Doctor of Medical Sciences, professor, Ilaschuk_tetiana@bsmu.edu.ua ; Bobkovych Kateryna, PhD., associate professor bobkovych.kateryna@bsmu.edu.ua Hlubochenko Olena, PhD., associate professor glubochenko.olena@bsmu.edu.ua Doholich Oleksandra, PhD., associate professor doholich.oleksandra@bsmu.edu.ua Malkovych Nataliia, PhD., associate professor malkovich@bsmu.edu.ua Mykytiuk Oksana, PhD., associate professor mykytiuk.oksana@bsmu.edu.ua Prysyazhnyuk Vasyl, Doctor of Medical Sciences, associate professor prysjazhnjuk.vasyl@bsmu.edu.ua
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2. GENERAL INFORMATION ABOUT THE DISCIPLINE

Status of the discipline	normative
Number of credits	3
Total amount of hours	90
Lectures	10
Practical lessons	30
Individual work	50
Type of final control	Final module control

3. DESCRIPTION OF THE DISCIPLINE (ABSTRACT)

Internal medicine, including clinical pharmacology, infectious diseases and epidemiology - an educational clinical discipline that studies the methods and techniques of clinical examination of

the patient, features of professional communication between doctor and patient, subjective and objective manifestations of diseases (symptoms and syndromes), causes and mechanisms of their origin and development (semiology) in order to substantiate the diagnosis.

4. POLICY OF THE SUBJECT

4.1. List of normative documents:

- Regulations on the organization of the educational process (<https://www.bsmu.edu.ua/wp-content/uploads/2020/03/polozhennya-pro-organizaciyu-osvitnogo-proczesu-u-vdnzu-bukovinskij-derzhavnij-medichnij-universitet.pdf>);
- Instructions for assessing the educational activities of BSMU students in the implementation of the European credit transfer system of the educational process (<https://www.bsmu.edu.ua/wp-content/uploads/2020/03/bdmu-instrukciya-shhodo-oczinyuvannya-%D1%94kts-2014-3.pdf>);
- Regulations on the procedure for reworking missed and uncredited classes (<https://www.bsmu.edu.ua/wp-content/uploads/2019/12/reworks.pdf>);
- Regulations on the appeal of the results of the final control of knowledge of higher education (<https://www.bsmu.edu.ua/wp-content/uploads/2020/07/polozhennya-pro-apelyaciyu-rezultativ-pidsumkovogo-kontrolyu-znan.pdf>);
- Codex of Academic Integrity (https://www.bsmu.edu.ua/wp-content/uploads/2019/12/kodeks_academic_faith.pdf);
- Moral and ethical codex of students (https://www.bsmu.edu.ua/wp-content/uploads/2019/12/ethics_code.docx);
- Regulations on the prevention and detection of academic plagiarism (<https://www.bsmu.edu.ua/wp-content/uploads/2019/12/antiplagiat-1.pdf>);
- Regulations on the procedure and conditions for students to choose elective courses (https://www.bsmu.edu.ua/wp-content/uploads/2020/04/nakaz_polozhennyz_vybirkovi_dyscypliny_2020.pdf);
- Rules of internal labor regulations of the Higher State Educational Institution of Ukraine "Bucovynian State Medical University" (<https://www.bsmu.edu.ua/wp-content/uploads/2020/03/17.1-bdmu-kolektivnij-dogovir-dodatok.doc>).

4.2. Policy on adherence to the principles of academic integrity of higher education students:

- independent performance of educational tasks of current and final controls without the use of external sources of information;
- cheating during control of knowledge is prohibited;
- independent performance of individual tasks and correct registration of references to sources of information in case of borrowing of ideas, statements, information.

4.3. Policy on adherence to the principles and norms of ethics and deontology by higher education students:

- actions in professional and educational situations from the standpoint of academic integrity and professional ethics and deontology;
- compliance with the rules of internal regulations of the university, to be tolerant, friendly and balanced in communication with students and teachers, medical staff of health care institutions;
- awareness of the importance of examples of human behavior in accordance with the norms of academic integrity and medical ethics.

4.4. Attendance policy for higher education students:

- attendance at all training sessions (lectures, practical (seminar) classes, final modular control) is mandatory for the purpose of current and final assessment of knowledge (except for respectable reasons).

4.5. Deadline policy and completion of missed or uncredited classes by higher education students:

- reworks of missed classes are held according to the schedule of missed or uncredited classes and consultations.

5. PRECISIONS AND POST-REQUIREMENTS OF THE EDUCATIONAL DISCIPLINE (INTERDISCIPLINARY RELATIONS)

List of disciplines, on which the study of academic discipline is based	List of academic disciplines, for which the basis is laid as a result of studying the discipline
Human anatomy and physiology	clinical pharmacology
ethics and deontology in pharmacy	biological and bioorganic chemistry
medical biology	medical chemistry
medical and biological physics	
microbiology with basics of immunology	
pathological physiology	
introduction to pharmacy	

6. PURPOSE AND TASKS OF THE EDUCATIONAL DISCIPLINE:

6.1. The purpose of studying the discipline is formation of the clinical thinking in students and acquisition of professional competencies of the patient examination and assessment of the main manifestations of internal organs diseases in compliance with the principles of medical ethics and deontology.

6.2. The main tasks of studying the discipline are:

- Leading symptoms and syndromes in the most common infectious diseases.
- Methods of diagnostic of internal organs pathology according to the syndrome and nosological principles.
- Interpretation of laboratory results (general clinical, biochemical, bacteriological, virological, serological) and instrumental research methods (duodenal sounding, X-ray examinations, ultrasound, CT-scan, MRI, etc.) in patients with the most common infectious diseases.
- Tactics of management of patients with the most widespread infectious diseases.
- Substantiation of a clinical diagnosis of diseases that require special dentist tactics.
- Providing emergency medical care for patients in life-threatening conditions.
- Performing the necessary medical manipulations.
- Formation of system of theoretical foundations of clinical pharmacology.
- Study and evaluation of pharmacodynamic and pharmacokinetic drugs parameters.
- Mastering the methodology of comparative evaluation of different drugs.
- Mastering the general methodology for selecting the optimal drug, its dose, methods of administration for a particular patient for effective and safe drug therapy.
- Learning of the drug interaction principles.
- Detect and predict in the early stages of drug side effects and make appropriate adjustments.
- Study of factors that increase the risk of drugs side effects and their combinations.

- Assimilation of methods and criteria for assessing the effectiveness and safety of specific drugs in the different diseases treatment.
- Mastering the skills of obtaining, analyzing and transmitting information about the pharmacological properties of drugs.

7. COMPETENCIES, THE FORMATION OF WHICH IS CONTRIBUTED BY THE DISCIPLINE:

4.1. Integral:

Ability to solve complex problems and problems in the field of health care in the specialty “Dentistry” in a professional activity or in the learning process, which involves research and/ or innovation and is characterized by uncertainty of conditions and requirements.

7.2. General competences (GC)

GC1. Ability for abstract thinking, analysis and synthesis.

GC2. Knowledge and understanding of the subject area and understanding of professional activity

GC 3. Ability to apply knowledge in practice.

GC 4. Ability to communicate in the state language both orally and in writing.

GC 5. Ability to communicate in English.

GC 6. Skills of using the information and communication technologies.

GC 7. Ability to search, process and analyze the information from various sources.

GC 8. Ability to adapt and act in a new situation.

GC 9. Ability to identify, set and solve problems.

GC 10. Ability to be critical and self-critical.

GC 11. Ability to work in a team.

GC 12. The desire to preserve the environment.

GC 13. Ability to act in a socially responsible and conscious manner.

GC 14. Ability to exercise personal rights and duties as a member of society, to understand the values of civil (free and democratic) society and the necessity of its sustainable development, supremacy of law, rights and freedoms of a human being and citizen of Ukraine.

GC 15. Ability to preserve and enhance moral, cultural, scientific values and social achievements based on the understanding of the history and development patterns of the subject area, its place in the overall system of knowledge about the nature and society and in the development of society, engineering and technology; to use different types and forms of motor activity for active recreation and healthy lifestyles.

7.3. Professional competencies of the specialty(PC)

PC 1. Ability to collect medical information about the patient and analyze clinical data.

PC 2. Ability to interpret the results of laboratory and instrumental studies.

PC 10. Ability to organize and conduct medical and evacuation measures.

PC 13. Ability to assess the impact of the environment on the people’s health (individual, family, population).

PC 14. Ability to conduct normative medical documentation.

PC 15. Processing of public, social and medical information.

PC 17. Ability to legally maintain one’s own professional activity.

PC 18. Ability to provide pre-medical care through tactical medicine protocols.

8. RESULTS OF STUDYING THE DISCIPLINE.

As a result of studying the discipline student must:

8.1. Know:

- Collect data on patient complaints, medical history, life history (including professional history), in a health care facility, its unit or at the patient's home, using the results of the interview with the patient, according to the standard scheme of the patient's survey. Under any circumstances (in the health care facility, its unit, at the patient's home, etc.), using knowledge about the people, their 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 and thyroid gland);
- examine the condition of the cardiovascular system (inspection 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 (inspection of the chest and upper respiratory tract, palpation of the chest, percussion and auscultation of the lungs);
- examine the condition of the abdominal organs (inspection of the abdomen, palpation and percussion of the intestine, stomach, liver, spleen, kidneys);
- examine the condition of the musculoskeletal system (inspection and palpation).
- Assess information about the patient's condition in the health care facility, its unit, using a standard procedure, using knowledge about the person, his organs and systems, based on the results of laboratory and instrumental studies:
 1. analysis of pleural fluid
 2. analysis of urine according to Zymnysky
 3. analysis of urine by Nechiporenko
 4. blood proteins and their fractions, C-reactive protein
 5. blood glucose, glycosylated hemoglobin,
 6. blood lipids and lipoproteins and their fractions
 7. ferritin and serum iron
 8. creatinine, blood urea, glomerular filtration rate
 9. blood electrolytes
 10. blood aminotransferases
 11. total blood bilirubin and its fractions
 12. coagulogram
 13. uric acid in the blood
 14. blood alkaline phosphatase
 15. study of the function of external respiration

16. standard ECG (in 12 leads)
17. endoscopic examination of the bronchi
18. endoscopic examination of the digestive tract
19. echocardiography
20. general blood test
21. general analysis of urine
22. general analysis of sputum
23. methods of instrumental visualization of abdominal organs
24. methods of instrumental visualization of the thoracic cavity
25. methods of instrumental visualization of the urinary system
26. methods of instrumental visualization of the spine, bones and joints

8.2. Be able to:

1. Identify and record the leading clinical symptom or syndrome of the disease:

- anemic syndrome
- anuria and oliguria
- arterial hypertension
- arterial hypotension
- chest pain
- stomach ache
- vomiting
- bronchoobstructive syndrome
- effusion into the pleural cavity
- hemorrhagic syndrome
- hepatomegaly and hepatolienal syndrome
- headache
- dysuria
- dyspepsia
- dysphagia
- diarrhea
- jaundice

- shortness of breath
- constipation
- dizziness
- cardiomegaly
- cough
- hemoptysis
- edematous syndrome
- nephrotic syndrome
- polyuria
- portal hypertension
- heart rhythm and conduction disorders
- urinary syndrome
- indigestion syndrome
- heart failure syndrome
- respiratory failure syndrome
- liver failure syndrome
- cyanosis
- gastrointestinal bleeding

by making an informed decision, using preliminary data of the patient's anamnesis, data of physical examination of the patient, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

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

3. Identify signs of emergency (hypertensive crisis, acute respiratory failure, acute heart failure, acute coronary syndrome, acute bleeding, cardiac arrest, collapse, loss of consciousness, renal colic, biliary colic, acute cardiac arrhythmias) by making an informed decision and assessment human condition, under any circumstances (at home, on the street, health care facility, its units), using standard methods of physical examination and possible history, information about the person, his organs and systems, adhering to the relevant ethical and legal norms.

4. Provide emergency medical care, under any circumstances, using knowledge of the person, his organs and systems, adhering to the relevant ethical and legal norms, by making an informed decision, based on the detection of an emergency (cardiac arrest) for a limited time

in accordance with certain tactics, using standard schemes (indirect heart massage and artificial lung ventilation).

5. Perform medical manipulations (perform indirect heart massage, artificial respiration, restore airway patency, record a standard ECG in 12 leads, measure blood pressure) in a medical institution, using knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms, by making an informed decision and using standard methods.

6. Under the conditions of the health care institution, its unit to keep medical records of the patient (outpatient / inpatient card, medical history), using standard technology, on the basis of regulatory documents.

7. Carry out preventive measures, in the conditions of the health care institution, its subdivision on the basis of data on the state of health of patients and on the presence of environmental impact on it, using existing methods, within the primary health care, regarding:

- regimen of activity and rest;
- primary disease prevention;
- prevention of bad habits;
- promotion of a healthy lifestyle.

8. To determine the necessary mode of stay of the patient in the health care institution on the basis of selected clinical symptoms and syndromes, using knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

8.3. Demonstrate:

PLO 1. To single out and identify the leading clinical symptoms and syndromes (according to the list 1); to establish a probable nosological or syndromic provisional clinical diagnosis of a dental disease taking into account standard methods, using the preliminary data of the patient's history, patient's examination data, knowledge about the person, his organs and systems (according to the list 2)

PLO 2. To collect information about the general condition of the patient; to assess psychomotor and physical development of the patient, the state of the organs of the maxillofacial area; to evaluate the information concerning the diagnosis based on the results of laboratory and instrumental studies (according to the list 5).

PLO 5. To establish a diagnosis of emergency conditions under any circumstances (at home, on the street, in a medical institution) in an emergency situation, martial law, lack of information and limited time (according to the list 4).

PLO 10. To determine the management tactics of a dental patient with somatic pathology (according to the list 3) by making an informed decision on the existing algorithms and standard schemes.

responsibilities, to raise the level of general cultural education.

PLO 19. To adhere to the requirements of ethics, bioethics and deontology in their professional activities.

PLO 20. To organize the necessary level of individual safety (one's own and persons cared for) in case of occurrence of typical hazardous situations in the individual field of activity.

PLO 21. To perform medical manipulations on the basis of preliminary and/or final clinical diagnosis (according to the list 2, 2.1) for different segments of the population and under different conditions (according to the list 6).

9. INFORMATION SCOPE OF THE COURSE

__ hours are allocated for studying academic discipline. (ECTS credits) – 2 modules of «Internal medicine, incl. clinical pharmacology, infectious diseases and epidemiology», which includes _____ content modules. As about a part of the program, esp., from Internal Medicine, that is 30 hours (1 ECTS credit) – 1 module, that includes 4 content modules.

Content module 1. Writing and defence of case history.

Topic 1. Analysis of the scheme of medical history. Curation – complains, anamnesis. Objective examination, provisional diagnosis. Curation – laboratory and instrumental investigations, substantiation of the clinical diagnosis. Curation - differential diagnosis, final diagnosis. Curation - treatment and prevention. The final version of the medical history, dental aspects of treatment; emergencies, dentist strategy, used literature. Content module control. Defence of case history.

Medical history as the most important tool of medical investigation of the patient, scientific, methodical and legal document. The main sections of medical history and their presentation. The main and secondary complaints of the patient, the importance of the patient's anamnesis for the diagnostics of the disease.

Collection of complaints from a specific patient assigned to curation. Analysis of complaints and their division into primary and "secondary". History (anamnesis) of the disease. Dynamics of occurrence and course of symptoms of the main and concomitant diseases according to the patient's words and his ambulatory card.

Life history of the patient. Data on childhood development, vaccinations, diseases. Age and causes of death of close and distant native relatives of the patient. Harmful Habits. Allergic, occupational and sexual history.

Physical examination of the patient. General inspection. Position in bed. State of consciousness. Face expression. Physique, constitution. Anthropometric data. Condition of skin and mucous membranes. Hair, nails. Obesity, cachexia. Musculoskeletal system. Joints, edema. Respiratory organs. Inspection. Palpation. Percussion. Auscultation. Circulatory organs. Inspection and palpation of blood vessels. Inspection, palpation, percussion, auscultation of the heart. Blood pressure measurement. Digestive organs. Inspection. Condition of the dental-maxillary system and tongue. Palpation, percussion, auscultation of the abdomen. Genitourinary organs. Their palpation, percussion, auscultation. Endocrine organs. Palpation, percussion, auscultation. Outlining main symptoms. Establishing provisional diagnosis.

Formation of a plan of laboratory and instrumental diagnostic methods. Evaluation of their results and making clinical diagnosis.

Differential diagnostics with diseases characterized by similar clinical signs (not less 4 diseases). Making final diagnosis: main, complications of the main diagnosis, concomitant pathology).

Non-medicament, medicament and surgical treatment (in case of necessity). Existing treatment standard. Primary and secondary prophylaxis. Prognosis and performance.

Main emergent conditions that may develop in examined patient. Emergency assistance in case of them. Dentists's strategy in case of need of intervention in oral cavity of such a patient. Used literature.

Defence of case history. Substantiation of the diagnosis, treatment standards.

Content module 2: Diseases of the urine-producing organs and urinary tract.

Topic 2. Glomerulonephritis. Acute and chronic glomerulonephritis. Nephrotic syndrome. Etiology, pathogenesis. Clinical signs, diagnostics, treatment guidelines. The concept of the chronic kidneys disease. Pyelonephritis. Urolithiasis. Etiology, pathogenesis, clinical signs, diagnostics, treatment guidelines. Dentist's role in prophylaxis. Acute renal failure. Chronic renal failure. Etiology, pathogenesis. Clinical signs, diagnostics, treatment guidelines. Dentist's role in prophylaxis. Control of the topical module.

Main syndromes in Nephrology. Definition and characteristics of the urinary syndrome components. Acute and chronic glomerulonephritis. Definition. Etiology. Pathogenesis. Clinical picture. Diagnostics. Complications. Formation of investigations plan, the role of X-ray, instrumental and laboratory investigations (ultrasound, pyelography, X-ray, CT-scan, hematology and biochemistry blood tests, urinalysis, urine test by Zimnitskyi and by Nechiporenko). Emergent help in nephrogenic renal hypertension. The value of sanitation of the oral cavity in prophylaxis and treatment. Existing treatment standards. Chronic kidneys disease.

Pyelonephritis. Urolithiasis. Definition. Clinical picture. Complications. Differential diagnosis of the urinary syndrome in case of hematuria, leucocyteuria, proteinuria. Primary and secondary prophylaxis. The role of sanitation of infection focuses in prophylaxis. Non-medicament, medicament treatment. Existing treatment standards. Prognosis and performance. .

Acute and chronic renal failure. Uremia. Definition. Etiology. Pathogenesis. Affliction of the organs and systems, their clinical manifestations. Classification of the chronic renal failure. Clinical picture changes of laboratory values depending on the stage. Uremic coma, emergent care. Treatment. Kidney-substituting therapy: hemodialysis, kidney transplantation.

Prognosis and performance. Dentist's role in prophylaxis of kidney diseases exacerbation. Changes in oral cavity. Dentist's strategy regarding patients and his role in illnesses prevention. Prognosis and performance.

Content module 3: Diseases of the endocrine system and metabolism.

Topic 3. Diabetes mellitus. Modern Classification. Etiology, pathogenesis, clinical signs. Diabetes mellitus type I. Guidelines for diagnostics and treatment of diabetes mellitus type I. Dentist's role in prophylaxis and treatment. Peculiarities of stomatological care. Diabetes mellitus type II. Guidelines for diagnostics and treatment of diabetes mellitus type II. Dentist's role in prophylaxis and diagnostics. Peculiarities of stomatological care. Diseases of the thyroid gland. Hyperthyreosis. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles.

Diabetes mellitus (DM). Definition. Prevalence, medical and social importance of Diabetes mellitus. Classification. «Latent diabetes». Etiology and pathogenesis. Importance of viral

aggression and immune alterations. Relation to obesity, disturbances of lipid metabolism. Metabolic syndrome. Interrelation with development of atherosclerosis, arterial hypertension. Insuline resistance. Prophylaxis of carbohydrate metabolism disturbances and role of stomatologist in it.

Symptoms of DM type I. Clinical and laboratory diagnostics. Grades of severity. Complications: microangiopathies (retinopathy, nephrosclerosis), chronic renal failure. Diabetic foot, diabetic hyper- and hypoglycemic comas. Emergent care in case of hyper- and hypoglycemic comas. Treatment guidelines of DM type I. Prophylaxis. Changes in oral cavity and peculiarities of strategy of the stomatologist in DM type I. Stomatologist role in prophylaxis and diagnostics of DM type I.

Symptoms of DM type II. Clinical and laboratory diagnostics. Grades of severity. Complications: microangiopathies (retinopathy, nephrosclerosis), chronic renal failure. Diabetic foot, diabetic hyper- and hypoglycemic, hyperosmolar coma in case of DM type II. Emergent care in case of comas. Treatment guidelines of DM type II. Prophylaxis. Changes in oral cavity and peculiarities of strategy of the stomatologist in DM type II. Stomatologist role in prophylaxis and diagnostics of DM type II.

Topic 4. Diseases of the thyroid gland. Hypothyrosis. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles. Diseases of the parathyroid glands. Etiology, pathogenesis, clinical signs, diagnostics, treatment principles. Adrenal glands diseases. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles.

Hypothyrosis. Definition, prevalence. Etiology and pathogenesis. Clinical picture. Diagnostics. Treatment guidelines. Changes in oral cavity and strategy of a physician-stomatologist.

Hypoparathyrosis. Etiology and pathogenesis. Clinical picture: seizures syndrome, tetanus attacks, vegeto-vascular disturbances, changes of skin and nails, hypocalcemia, hyperphosphatemia. Course, diagnostics. Treatment guidelines. Emergent care in case of seizures. Changes in oral cavity.

Hyperparathyrosis. osteitis fibrosa (osteodystrophia fibrosa, Engel-von Recklinghausen's disease of bone). Concrements deposition in the kidneys, the gall bladder. Etiology and pathogenesis. Clinical picture, course, diagnostics, prognosis, treatment guidelines. Influence over state of teeth-

Influence upon teeth-jaw system, disturbances of the mineral metabolism. Changes in oral cavity, stomatologist's strategy.

Diseases of the suprarenal (adrenal) glands. Adrenal insufficiency, Addison's disease. Reasons, pathogenesis, risk factors. Diagnostics. Complications: addison's crisis, adrenal coma. Emergent care. Secreting adenomas of the adrenal grands. Cushing syndrome. Clinical signs (incl. those from side of mucous membranes of the oral cavity and teeth-jaw system). Primary hyperaldosteronism (aldosteroma, Conn's syndrome). Etiology, pathogenesis. Diagnostics. Clinical signs. Arterial hypertension. Emergent care in case of hypertensive crisis. Determination of the aldosterone level in blood and urine. Pheochromocytoma. Diagnostic criteria. Determination of the vanililmandelic acid level in urine. CT-scan, selective phlebography, radioisotope investigation of the adrenal glands.

Content module 4. Diseases of the hemopoietic organs. Immune system diseases in stomatological practice. Allergic diseases. Secondary immune deficiency.

Topic 5. Iron-deficient anemias. Etiology, pathogenesis, clinics, diagnostics, treatment guidelines. Megaloblastic anemias. Etiology, pathogenesis, clinical signs, diagnostics, treatment principles. Dentist's role in prophylaxis. Patognomonic symptoms in oral cavity. Hypo-, aplastic and hemolytic anemias. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles. Dentist's role in prophylaxis. Patognomonic symptoms in oral cavity. Hematooncological disorders. Modern opinion on etiology and pathogenesis. WHO classification. General treatment guidelines. Dentist's role in prophylaxis, diagnostics, treatment of manifestations and complications of the therapy of hematooncological diseases. Acute and chronic myeloid, lymphoid leucemias and lymphomas. Etiology, pathogenesis, clinical signs, diagnostics, treatment principles. Peculiarities of manifestations in oral cavity.

Iron-deficient anemias. Definition. Common manifestations of the anemias, including those in the oral cavity. Etiology, pathogenesis. Diagnostics. Patognomonic symptoms of iron-deficient anemias in the oral cavity. Treatment guidelines. Prognosis. Prophylaxis. The role of stomatologist in prophylaxis. Emergent care in acute bleeding.

Megaloblastic anemias. Definition. Etiology, pathogenesis. Clinical manifestations of the megaloblastic anemias, including those in the oral cavity. Diagnostics. Patognomonic symptoms in the oral cavity. Treatment guidelines. Prognosis. Prophylaxis. The role of stomatologist in prophylaxis.

Hypo, aplastic and hemolytic anemias. Etiology, pathogenesis. Clinical manifestations of the megaloblastic anemias, including those in the oral cavity. Diagnostics. Patognomonic symptoms in the oral cavity. Treatment guidelines. Prognosis. Prophylaxis. The role of stomatologist in prophylaxis.

Modern opinion on etiology and pathogenesis (onco- and proto-oncogenes). Overview of tumor transformation, dissemination and progression. WHO classification. General treatment guidelines (programmed cytostatic and accompanying therapy, complications). Estimation of the efficacy. The role of stomatologist in diagnostics, treatment of the manifestations and complications of the therapy of hematooncological diseases.

Acute lymphoblastic (B and T-cell) and chronic lymphocytic leucemias and lymphomas. Clinical manifestations, main syndromes. Diagnostics. Course. Treatment guidelines. Peculiarities of their manifestations in the oral cavity and their treatment. Acute myeloblastic (M₀ -M₇) and chronic myelocytic leucemias (chronic myeloleucemia, erythremia). Myelodysplastic syndromes. Tumors from histiocytes and dendritic cells. Clinical manifestations. Main syndromes. Diagnostics. Course. Differential diagnosis. Treatment guidelines. Peculiarities of their manifestations in the oral cavity and role of stomatologist in their treatment.

Topic 6. Agranulocytosis. Etiology, pathogenesis, clinics, diagnostics, treatment guidelines. Dentist's role in prophylaxis. Trombocytopenias and tromcytopaties. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles. Peculiarities of dentist care for patients with pathology of the primary hemostasis. Hemophilias A, B, C. Villebrandt disease. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles. Stomatologist's strategy in case of interventions in oral cavity in patients with hemophilia.

Hemorrhagic vasculitis. (Henoch–Schönlein purpura (HSP)). Vasopaties. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles. Prophylaxis and peculiarities of hemostasis in case of vasculitis and vasopathy in dentist’s practice.

Agranulocytosis. Etiology, pathogenesis. Clinical signs of immune agranulocytosis. Main signs. Complications. Overview of cytostatic disease. Clinical and laboratory diagnostics of the cytopenic syndrome and agranulocytosis.

Hemostasis illnesses (hemorrhagic diseases). Modern classification, clinical manifestations, common principles of laboratory diagnostics of disturbances of primary, secondary hemostasis and fibrinolysis. Trombocytopenias and trombocytopatias. (inherited and acquired). Diagnostics. Treatment guidelines. Prophylaxis. Peculiarities of dentist care for patients with pathology of the primary hemostasis. Thrombocytopenic purpura ("Werlhof's disease"). Diagnostic criteria. Course. Complications. Emergent care in acute bleeding. Changes in oral cavity.

Hemophilias (A, B, C) and other hereditary and acquired coagulopathies. Peculiarities of strategy of the stomatologist. Villebrandt disease. Clinical signs, course of hemophilias and Villebrandt disease. Diagnostics. Prognosis. Strategy of the dentist in case of interventions in oral cavity of a patient with hemophilia. Treatment and prophylaxis guidelines in bleeding.

Hemorrhagic vasculitis. (Henoch–Schönlein purpura). Etiology, pathogenesis, clinics. Dentist’s role in prophylaxis. Main forms (cutaneous, articular, abdominal, renal). Manifestations in oral cavity. Treatment guidelines. Vasopaties. Reasons. Clinical manifestations in oral cavity. Diagnostics. Prophylaxis and peculiarities of hemostasis in case of vasculitis and vasopathy in dentist’s practice.

Topic 7. Anaphylactic shock, urticaria, angioedema. Secondary immune deficiencies. Stomatological aspects of immune system diseases.

The concept of allergies. Pathogenesis and types of allergic reactions. EMERgent type allergic reactions. Anaphylactic shock. Acute toxico-allergic reactions; urticarial, Quinke. Serum sickness. Etiology. Mechanism of development. Types and forms of anaphylaxis. Clinical signs. Course. Treatment guidelines. Emergency care for severe and anaphylactic forms.

Secondary immunodeficiencies. Definition. Etiology. Pathogenesis. Clinical signs. Diagnostics. Basic approaches to the treatment of secondary immunodeficiencies. Dental aspects of diseases of the immune system.

Topic 8. Control of the content module. Module control.

10. ACADEMIC SUBJECT STRUCTURE

Titles of content modules and topics	Hours quantity				
	totally	including			
		In-class		Independent work of student	Individual work
		Lectures	Practical classes		

1	2	3	4	5	6
Content module 1. Writing and defence of case history.					
<p>Topic 1. Analysis of the scheme of medical history. Curation – complains, anamnesis. Objective examination, provisional diagnosis. Curation – laboratory and instrumental investigations, substiation of the clinical diagnosis. Curation - differential diagnosis, final diagnosis. Curation - treatment and prevention. The final version of the medical history, dental aspects of treatment; emergencies, dentist strategy, used literature. Content module control. Defence of case history.</p>	4,5	-	4	0,5	
Total in content module 1	4,5	-	4	0,5	
Content module 2: Diseases of the urine-producing organs and urinary tract.					
<p>Topic 2. Glomerulonephritis. Acute and chronic glomerulonephritis. Nephrotic syndrome. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles. The concept of the chronic kidneys disease. Pyelonephritis. Urolithiasis. Etiology, pathogenesis, clinical signs, diagnostics, treatment principles. Dentist’s role in prophylaxis. Acute renal failure. Chronic renal failure. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles. Dentist’s role in prophylaxis. Control of the topical module.</p>			4	0,5	
Total in content module 2	4,5		4	0,5	

Content module 3: Diseases of the endocrine system and metabolism.

<p>Topic 3. Diabetes mellitus. Modern Classification. Etiology, pathogenesis, clinical signs. Diabetes mellitus type I. Guidelines for diagnostics and treatment of diabetes mellitus type I. Dentist's role in prophylaxis and treatment. Peculiarities of stomatological care. Diabetes mellitus type II. Guidelines for diagnostics and treatment of diabetes mellitus type II. Dentist's role in prophylaxis and diagnostics. Peculiarities of stomatological care. Diseases of the thyroid gland. Hyperthyreosis. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles.</p>			2	0,5	
<p>Topic 4. Diseases of the thyroid gland. Hypothyrosis. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles. Diseases of the parathyroid glands. Etiology, pathogenesis, clinical signs, diagnostics, treatment principles. Adrenal glands diseases. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles.</p>			2	0,5	
<p>Total in content module 3</p>	5		4	1	
<p align="center">Content module 4. Diseases of the hemopoietic organs. Immune system diseases in stomatological practice. Allergic diseases. Secondary immune deficiency.</p>					
<p>Topic 5. Iron-deficient anemias. Etiology, pathogenesis, clinics, diagnostics, treatment guidelines. Megaloblastic anemias. Etiology, pathogenesis, clinical signs, diagnostics, treatment principles. Dentist's role in prophylaxis. Patognomonic symptoms in oral cavity. Hypo-, aplastic and hemolytic anemias.</p>					

<p>Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles. Dentist's role in prophylaxis. Patognomonic symptoms in oral cavity. Hematooncological disorders. Modern opinion on etiology and pathogenesis. WHO classification. General treatment guidelines. Dentist's role in prophylaxis, diagnostics, treatment of manifestations and complications of the therapy of hematooncological diseases. Acute and chronic myeloid, lymphoid leucemias and lymphomas. Etiology, pathogenesis, clinical signs, diagnostics, treatment principles. Peculiarities of manifestations in oral cavity.</p>		2	4	0,5	
<p>Topic 6. Agranulocytosis. Etiology, pathogenesis, clinics, diagnostics, treatment guidelines. Dentist's role in prophylaxis. Trombocytopenias and trombocytopies. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles. Peculiarities of dentist care for patients with pathology of the primary hemostasis. Hemophilias A, B, C. Villebrandt disease. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles. Stomatologist's strategy in case of interventions in oral cavity in patients with hemophilia. Hemorrhagic vasculitis. (Henoch-Schönlein purpura (HSP)). Vasopaties. Etiology, pathogenesis. Clinical signs, diagnostics, treatment principles. Prophylaxis and peculiarities of hemostasis in case of vasculitis and casopathy in</p>			4	0,5	

dentist's practice.					
Topic 7. Anaphylactic shock, urticaria, angioedema. Secondary immune deficiencies. Stomatological aspects of immune system diseases.		-	2	0,5	
Total in content module 4	13,5	2	10	1,5	
Individual independent work					
Final module control	2,5		2	0,5	
TOTAL; HOURS	30	2	24	4	

11. THEMATIC PLAN OF THE LECTURES

№ п/п	Тема	Кільк. годин
1.	Anemias. Etiology, pathogenesis, clinics, diagnostics, treatment guidelines. The role of the dentist in early diagnosis and prevention. Leukemias and lymphomas. Etiology, pathogenesis, clinics, diagnostics, treatment guidelines. Typical changes in the oral cavity in agranulocytosis and leukemia. The role of the dentist in early diagnosis and prevention.	2
Всього		2

12. Thematic plan of practical (seminar) classes

№	Name of topic	Amount of hours
1.	Analysis of the case history scheme. Curation - complaints, anamnesis. Curation - an objective examination, a preliminary diagnosis. Curation - laboratory and instrumental methods investigation, substantiation of clinical diagnosis. Curation - differential diagnosis, final diagnosis. Curation - treatment and prevention. The final version of the case history, dental aspects of treatment, emergencies, dentist tactics, literature used. Defense of case history	4

2.	<p>Glomerulonephritis. Acute and chronic glomerulonephritis. Nephrotic syndrome. The concept of chronic kidney disease. Pyelonephritis. Urolithiasis. Etiology, pathogenesis, clinical symptoms, diagnosis and principles of treatment. The role of dentist in prevention. Acute renal failure. Chronic renal failure. Etiology, pathogenesis, clinical symptoms, diagnosis and principles of treatment. The role of the dentist in prevention. Content module control.</p>	4
3.	<p>Diabetes mellitus. Modern classification. Etiology, pathogenesis, clinical manifestations. National program "Diabetes mellitus". Principles of diagnosis and treatment of type I and II diabetes. The role of the dentist in the prevention and diagnosis. Features of dental tactics.</p>	2
4.	<p>Thyroid disease. Hyper- and hypothyroidism. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment. Diseases of the parathyroid glands. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment.</p> <p>Diseases of the adrenal glands. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment. Diseases of the pituitary gland. Etiology, pathogenesis, clinical manifestation, diagnosis and principles of treatment. The role of the dentist in the prevention and treatment of endocrine organs diseases. Content module control.</p>	2
5.	<p>Iron deficiency anemia. Etiology, pathogenesis, clinical manifestation, diagnosis, principles of treatment. The role of the dentist in prevention. Pathognomonic symptoms in the oral cavity. Megaloblastic anemia. Etiology, pathogenesis, clinical manifestation, diagnosis, principles of treatment. The role of the dentist in prevention. Pathognomonic symptoms in the oral cavity. Hypo-, aplastic and hemolytic anemias. Etiology, pathogenesis, clinical manifestation, diagnosis, principles of treatment. The role of the dentist in prevention. Pathognomonic symptoms in the oral cavity. Hematooncological diseases. Modern views on the etiology and pathogenesis. WHO classification. General principles of treatment. The role of the dentist in the diagnosis, treatment of manifestations and complications of treatment in hematooncological diseases. Acute and chronic myeloid, lymphoid leukemias and lymphomas. Etiology, pathogenesis. Course. The main syndromes. Diagnosis and treatment principles. Features of manifestations in the oral cavity.</p>	4
6.	<p>Agranulocytosis. Etiology. Pathogenesis. Clinical manifestations. Diagnosis and principles of treatment. The role of the dentist in prevention. Thrombocytopenia and thrombocytopathy. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment. Features of dental care for patients with pathology of primary hemostasis. Hemophilia A, B, C. Willebrand's disease. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment. Tactics of the dentist during manipulations in the oral cavity in patients with hemophilia. Hemorrhagic vasculitis (Shenlein-Henoch disease). Vasopathy. Etiology, pathogenesis, clinic, diagnosis and principles of treatment. Prevention and features of hemostasis in vasculitis and vasopathy in dental practice.</p>	4
7.	<p>Anaphylactic shock, urticaria, angioneurotic edema. Secondary immunodeficiencies.</p>	2

	Dental aspects of immune system diseases. Content module control.	
8.	Final module control	2
Total		24

13. Thematic plan of individual work

№	Name of topic	Amounts of hours	
		Full-time form	Correspondence form
MODULE 1 "Fundamentals of internal medicine (writing and defense of case history, diseases of the kidney and urinary tract, diseases of the endocrine system and metabolism disorders, diseases of the hematopoietic organs, allergic diseases)			
<i>Content module 1. Writing and defense of case history</i>			
1.	Analysis of the case history scheme. Curation - complaints, anamnesis. Curation - an objective examination, a preliminary diagnosis. Curation - laboratory and instrumental methods of examination, substantiation of clinical diagnosis. Curation - differential diagnosis, final diagnosis. Curation - treatment and prevention. The final version of the case history, dental aspects of treatment, emergencies, dentist tactics, literature used. Defense of case history	0,5	-
<i>Content module 2. Diseases of kidney and urinary tract</i>			
2	Glomerulonephritis. Acute and chronic glomerulonephritis. Nephrotic syndrome. The concept of chronic kidney disease. Pyelonephritis. Urolithiasis. Etiology, pathogenesis, clinic, diagnosis and principles of treatment. The role of dentist in prevention. Acute renal failure. Chronic renal failure. Etiology, pathogenesis, clinical symptoms, diagnosis and principles of treatment. The role of the dentist in prevention. Content module control.	0,5	-
<i>Content module 3. Diseases of the endocrine system and metabolism disorders</i>			
3	Diabetes mellitus. Modern classification. Etiology, pathogenesis, clinical manifestations. National program "Diabetes mellitus ". Principles of diagnosis and treatment of type I and II diabetes. The role of the dentist in the prevention	0,5	-

	and diagnosis. Features of dental tactics.		
4	Thyroid disease. Hyper- and hypothyroidism. Etiology, pathogenesis, clinical manifestation, diagnosis and principles of treatment. Diseases of the parathyroid glands. Etiology, pathogenesis, clinical manifestation, diagnosis and principles of treatment. Diseases of the adrenal glands. Etiology, pathogenesis, clinical symptoms, diagnosis and principles of treatment. Diseases of the pituitary gland. Etiology, pathogenesis, clinical manifestation, diagnosis and principles of treatment. The role of the dentist in the prevention and treatment of diseases of the endocrine organs.	0,5	-
<p><i>Content module 4. Diseases of hematopoietic organs. Diseases of the immune system in the practice of dentistry. Allergic diseases. Secondary immunodeficiencies.</i></p>			
5	Iron deficiency anemia. Etiology, pathogenesis, clinical manifestation, diagnosis, principles of treatment. The role of the dentist in prevention. Pathognomonic symptoms in oral cavity. Megaloblastic anemia. Etiology, pathogenesis, clinical manifestation, diagnosis, principles of treatment. The role of the dentist in prevention. Pathognomonic symptoms in oral cavity. Hypo-, aplastic and hemolytic anemia. Etiology, pathogenesis, clinical manifestation, diagnosis, principles of treatment. The role of the dentist in prevention. Pathognomonic symptoms in oral cavity. Hematooncological diseases. Modern views on the etiology and pathogenesis. WHO classification. General principles of treatment. The role of the dentist in the diagnosis, treatment of manifestations and complications of treatment of hematooncological diseases. Acute and chronic myeloid, lymphoid leukemias and lymphomas. Etiology, pathogenesis. Course. The main syndromes. Diagnosis and treatment principles. Features of manifestations in oral cavity.	0,5	-
6	Agranulocytosis. Etiology. Pathogenesis. Clinical manifestations. Diagnosis and principles of treatment. The role of the dentist in prevention. Thrombocytopenia and thrombocytopathy. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment. Features of dental care for patients with pathology of primary hemostasis. Hemophilia A, B, C. Willebrand's disease. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment. Tactics of the dentist during manipulations in the oral cavity in patients with hemophilia. Hemorrhagic vasculitis (Shenlein-Henoch disease). Vasopathy. Etiology, pathogenesis, clinical symptoms, diagnosis and	0,5	-

	principles of treatment. Prevention and features of hemostasis in vasculitis and vasopathy in dental practice.		
7	Anaphylactic shock, urticaria, angioneurotic edema. Secondary immunodeficiencies. Dental aspects of immune system diseases. Dental aspects of immune system diseases.	0,5	-
8	Final module control	0,5	-
	Total:	4	-

14. LIST OF INDIVIDUAL TASKS

- Report in the scientific student group.
- Participation in scientific conferences.
- Publication of reports in the form of abstracts and articles in periodicals (journals, collections of scientific papers).
- Production of visual aids according to educational programs (tables, models, visual aids, graphological schemes of practical classes).
- Writing referats

15. LIST OF THEORETICAL TASKS TO THE FINAL MODULE CONTROL

Content module 1 Writing and defense of case history.

1. The structure of case history.
2. The sequence of patient examination and the presentation of case history during curation.
3. Establishment of preliminary, clinical final diagnosis
4. Syndrome diagnosis and features of differential diagnosis.

Content module 2. Diseases of kidney and urinary tract

1. Leading syndromes in kidney diseases: edematous syndrome, nephrotic syndrome, renal hypertension syndrome, renal eclampsia, renal colic, acute renal failure, chronic renal failure.
2. Acute glomerulonephritis. Definition. Clinical symptoms. Complication. Diagnosis. Treatment. Prognosis.
3. The role of remediation of infection foci in the prevention of acute glomerulonephritis
4. Chronic glomerulonephritis. Definition. Etiology. Pathogenesis. Clinical manifestations. Morphological variants of the course. Diagnosis. Complication. Principles of treatment.
5. Chronic kidney disease. Nephrotic syndrome. Uremia. Emergency aid.
6. Acute pyelonephritis (AP). Definition. Forms of diseases course. Risk factors for the development of AP. Clinical manifestations. Diagnosis. Complication. Treatment. Prognosis.
7. Chronic pyelonephritis (CP). Definition. Etiology. Clinical manifestations. Course. Complication. Treatment. Prevention. The role of the dentist in the prevention of CP.

8. Acute renal failure (ARF). Definition. Classification. Pathogenesis. Clinical manifestations. Stages of ARF. Diagnosis. Course and prognosis. Treatment. Prevention.

9. Chronic renal failure (CRF). Definition. Etiology. Pathogenesis. Classification. Clinical manifestations. The main clinical syndromes of CRF. Course. Diagnosis. Treatment. Prevention. The role of the dentist in prevention.

Content module 3. Diseases of the endocrine system and metabolism disorders.

1. Diabetes mellitus (DM). Classification. Etiology. Pathogenesis. National Diabetes Program.

2. Type I diabetes. Clinical symptoms. Diagnosis. Complication. Principles of treatment. Features of dental tactics in management of patients with diabetes.

3. Type II diabetes. Prevalence of diseases. Etiology. Insulin resistance. Diagnosis. Complications (macro and microangiopathy, chronic renal failure, diabetic foot). Principles of treatment. Prevention.

4. Coma in diabetes. Hyperlycemic, hypoglycemic, hyperosmolar. Differential diagnosis. Emergency aid.

5. Changes in oral cavity in patients with diabetes and the tactics of the dentist in the treatment of patients with diabetes.

6. Thyrotoxicosis (diffuse toxic goiter). Definition, distribution. Etiology. Pathogenesis. Clinical manifestations: general, nervous, ophthalmic, changes in the cardiovascular system, metabolic processes. Course.

7. Methods of diagnosis of thyrotoxicosis. Complication. Changes in the oral cavity. Principles of treatment.

8. Hypothyroidism. Definition. Prevalence. Etiology. Pathogenesis.

9. Clinical manifestations of hypothyroidism. Diagnosis. Complication

10. Principles of treatment of hypothyroidism. Changes in the oral cavity and tactics of the dentist.

11. Hypoparathyroidism. Etiology. Pathogenesis. Clinical symptoms. Diagnosis. Course. Principles of treatment.

12. Convulsive syndrome in hypoparathyroidism. Providing emergency care.

13. Changes in the oral cavity and tactics of the dentist in hypoparathyroidism.

14. Hyperparathyroidism. Etiology. Pathogenesis. Clinical symptoms. Diagnosis. Course. Treatment. Prognosis. Changes in the oral cavity. Dentist tactics

15. Diseases of the adrenal glands. Adrenal insufficiency. Addison's disease. Etiology. Risk factors. Diagnosis. Principles of treatment. Complications: Addison's crisis, adrenal coma. Emergency aid. Changes in the oral mucosa in Addison's disease.

16. Secretory adenomas of the adrenal glands. Cushing's syndrome. Clinical signs (including from the oral mucosa and dental system).

17. Primary hyperaldosteronism (aldosteroma, Conn's syndrome): Etiology. Pathogenesis. Diagnosis. Determination of aldosterone in blood and urine. Clinical symptoms. Hypertension. Emergency care for hypertensive crisis.

18. Pheochromocytoma. Etiology. Clinical symptoms. Diagnostic criteria. Determination of vanillyl-mandelic acid in urine. Computed tomography, radioisotope study. Diseases of the pituitary gland. Clinical forms. Acromegaly. Clinical signs. Diagnosis. Principles of treatment. Gigantism, dwarfism. Itsenko-Cushing's disease. Hypopituitarism. Diabetes mellitus. Characteristic features. Diagnosis. Course. Complication. Principles of treatment.

19. Differential-diagnostic signs of changes of the tongue and oral mucosa in diseases of the endocrine system and metabolic disorders.

Content module 4. Diseases of hematopoietic organs. Diseases of the immune system in the practice of dentistry. Allergic diseases. Secondary immunodeficiencies

1. Iron deficiency anemia. Definition. General manifestations of anemia, including in the oral cavity. Etiology. Pathogenesis. Diagnosis.
2. Pathognomonic symptoms of iron deficiency anemia in the oral cavity. Principles of treatment. Prognosis. Prevention. The role of the dentist in prevention. Emergency care in acute massive blood loss.
3. Megaloblastic anemia. Definition. Etiology. Pathogenesis. Clinical manifestations of megaloblastic anemia, including in the oral cavity. Diagnosis.
4. Pathognomonic syndromes in the oral cavity in megaloblastic anemia. Principles of treatment. Prognosis. Prevention. The role of the dentist in prevention.
5. Hypo-, aplastic and hemolytic anemias. Definition. Etiology. Pathogenesis. Clinical manifestations of anemia, including in the oral cavity. Diagnosis.
6. Pathognomonic symptoms in the oral cavity in hypo-, aplastic and hemolytic anemias. Principles of treatment. Prognosis. Prevention. The role of the dentist in prevention.
7. Hematooncological diseases. Modern views on the etiology and pathogenesis (onco- and proto-oncogenes). The concept of tumor transformation, dissemination and progression. WHO classification.
8. General principles of treatment (program cytostatic and concomitant therapy, complications) of hematooncological diseases, Evaluation of effectiveness. The role of the dentist in the diagnosis, treatment of manifestations and complications of treatment of hematooncological diseases.
9. Acute lymphoblastic (B and T cell) and chronic lymphocytic leukemias and lymphomas. Clinical manifestations, main syndromes. Diagnosis. Course. Principles of treatment. Features of manifestations in the oral cavity and their treatment.
10. Acute myeloblastic (M0 -M7) and chronic myelocytic leukemias (chronic myelogenous leukemia, erythremia). Myelodysplastic syndromes. Tumors of histiocytes and dendritic cells. Clinical manifestations. The main syndromes. Diagnosis. Course. Differential diagnosis. Principles of treatment. Features of manifestations in the oral cavity and the role of the dentist in their treatment.
11. Agranulocytosis. Etiology and pathogenesis, Clinical symptoms of immune agranulocytosis. Main signs: Complications. The concept of cytostatic disease. Clinical and laboratory diagnosis of cytopenic syndrome and agranulocytosis.
12. . Diseases of hemostasis (hemorrhagic diseases). Modern classifications, clinical manifestations, general principles of laboratory diagnosis of primary and secondary disorders of hemostasis and fibrinolysis. Prevention.

13. Thrombocytopenia and thrombocytopathy (hereditary and acquired). Diagnosis. Principles of treatment.
14. Thrombocytopenic purpura (Werlhof's disease). Diagnostic criteria. Course. Complication. Treatment. Emergency care of bleeding. Changes in the oral cavity.
15. Features of dental care in patients with pathology of primary hemostasis.
16. Hemophilia (A, B, C) and other hereditary and acquired coagulopathies. Etiology. Pathogenesis. Clinical manifestations. Features of tactics of dentist. Principles of treatment.
17. Willebrand's disease. Clinical manifestations, course. Diagnosis. Prognosis. Principles of treatment and prevention of bleeding
18. Tactics of the dentist during interventions in the oral cavity in patients with hemophilia.
19. Hemorrhagic vasculitis (Shenlein-Henoch disease). Etiology, pathogenesis. Clinical picture. The main forms (skin, joint, abdominal, kidney). Manifestations in the oral cavity. Principles of treatment.
20. Vasopathy. Reasons. Clinical manifestations in the oral cavity. Diagnosis. Prevention.
21. Features of hemostatic therapy in vasculitis and vasopathy in dental practice.
22. The concept of allergies. Pathogenesis and types of allergic reactions
23. Allergic reactions of immediate type. Anaphylactic shock. Acute toxicosis-allergic reactions (ATAR); urticaria, Quincke's edema. Serum sickness. Etiology. Development mechanism. Types and forms of anaphylaxis. Clinical symptoms. Course. Principles of treatment. Emergency care in severe and anaphylactic forms.
24. Secondary immunodeficiencies. Definition. Etiology. Pathogenesis. Clinical signs. Diagnosis. Basic approaches to the treatment of secondary immunodeficiencies. Dental aspects of immune system diseases.

16. LIST OF PRACTICAL SKILLS AND TASKS TO THE FINAL MODULE CONTROL

According to the credit-module system organization of the educational process, practical classes are conducted in the mode of rotation of modules of clinical disciplines. The duration of one practical lesson is at least 2 hours. According to the method of organization, they are clinical, that aimed to controlling of assimilation theoretical material and formation of practical skills, as well as the ability to analyze and apply the acquired knowledge to solve practical problems. They provide:

- history taking;
- examination of the patient;
- planning the examination of the patient;
- interpretation of laboratory and instrumental research data;
- differential diagnosis of the most common complications;
- determination of the preliminary clinical diagnosis;
- determination of patient management tactics;
- providing emergency medical care;
- solving situational problems;
- train of practical skills at the patient's bedside;
- keeping medical records.

17. METHODS AND FORMS OF IMPLEMENTATION OF THE CONTROL

All types of student activities must be controlled, including current (at each lesson) and final (during control activities) during the study of the discipline.

Modular control is a diagnosis of the student's assimilation of the module material (content credit). The semester ends with a final module control.

The initial control of students' knowledge is carried out during practical classes and includes testing of theoretical and practical knowledge that studied in previous courses. This conducted by frontal oral examination, or writing control work, with uses of questions or tests.

Current control of students' knowledge is carried out during practical classes and includes testing of theoretical knowledge and control of mastering practical skills, which are provided by methodical instruction of relevant topics. Testing of students' knowledge is carried out with the help of oral face-to-face interviews, solving tests of varying severity, solving typical and atypical situational tasks, as well as during checking the correctness of laboratory research tasks.

Intermediate control of students' knowledge is carried out during final control work during the last lesson of the content module.

Final control of students' knowledge is carried out during the last practical lesson after completion of the module in the form of final modular control. The teacher checks the knowledge of theoretical material (according to the list of questions). In addition, students perform practical work that is attached to the ticket and solve situational tasks, which are also taken into account when assessing their knowledge.

The final module control (FMC) is carried out after the completion of the study of all module topics at the last module control lesson.

Students who have attended all discipline classes provided by the curriculum and received positive marks ("5", "4", "3"), as well as scored the number of points during the study of the module, not less than minimal, have permission to module control lesson.

A student, who has missed classes for valid or non-valid reasons, is allowed to rework academic arrears until a certain deadline.

The maximum number of points that a student can score during the final module control is 80.

The final module control is considered credited if the student has scored ***at least 50 points.***

Thus, the shares of the assessment results of current educational activities and the final module control are 60% and 40%, respectively.

The final module control in drug toxicology is carried out in writing form by the writing by student of final work, which includes 3 theoretical questions, the implementation of the practical part and solving of situational and test tasks. The evaluation of the student's response is carried out in accordance with the developed and approved criteria of drug toxicology.

The maximum number of points of the modular final control is equal to 80.

The module is considered credited if the student has scored at least 50 points.

Writing a control work includes:

1. Control of the level of theoretical knowledge of students. Each student is offered 3 theoretical tasks, which are evaluated at 10 points for each (*total 30 points*)

2. Checking the level of practical skills acquisition is carried out by prescribing and adjusting prescriptions for drugs with indicating the affiliation to certain pharmacological groups and indications for their use, the toxicological characteristics of the proposed drug. (*total 30 points*).

3. Solving the situational tasks (10 points) and 10 test tasks - the correct answer to each is estimated at 1 point (*total 20 points*)

18. EVALUATION OF THE LEVEL OF STUDENT TRAINING IN THE DISCIPLINE

During the assessment of mastering each topic, the student is graded on a 4-point (traditional) scale and on a 200-point scale using the accepted and approved assessment criteria for the relevant discipline. This takes into account all types of work provided by the methodological instruction of the topic.

The student must receive a mark on each topic. Marks are converted into points depending on the number of topics according to the traditional scale

The value of each topic in points in one module should be the same. Forms of assessment of current educational activities should be standardized and include control of theoretical and practical training. The final score for current activities is recognized as the arithmetic sum of scores for each lesson and for individual work. The maximum number of points that can be obtained by the applicant for the current activity during the study of the discipline is calculated by multiplying the number of points corresponding to the mark "5" by the number of topics with added points for the individual task of the applicant, but not more than 200 points.

Distribution of points assigned to students

Number of module number of study hours / number of credits ECTS	Number of content modules, their numbers	Number of practical classes	Conversion into point of the traditional scale					Scores for individual task	Minimum score *
			Traditional scale						
			"5"	"4"	"3"	"2"			
Module 1 120/4,0	4	20	5,5	4,5	3,5	0	10 6 2 0	72	

The minimum number of points for full-time students, that a student can earn while studying the module, is calculated by adding the number of points that correspond to the mark "satisfactory" in each class: $72 = 3.5 \text{ points} \times 20 \text{ topics} + 2 \text{ points individual work}$.

12. RECOMMENDED LITERATURE

19.1 Basic

- Harrison's principles of internal medicine. 19th Edition / Dennis L. Kasper [et al.]. – Vol. 1, 2, New York: "McGray-Hills Education", 2015. – 3983 p.
- Stuart H Ralston et all. *Davidson's Principles and Practice of Medicine* - 23rd Edition. 2018, Elsevier - 1440p.
- Maxine A. Papadakis Current Medical Diagnosis & Treatment 2020 / Maxine A. Papadakis, Stephen J. McPhee, Michael W.Rabow – «McGrow-Hill Medical», 2020. – 1920 p.
- Kovalyova O.M. Propedeutics to internal medicine. Part 2. /O.M.Kovalyova, S.O.Shapovalova, O.O.Nizhegorodtseva. – Вінниця: Нова книга, 2007. – 264 с.
- Kovalyova O. Propedeutics to internal medicine. Part 1/ O.Kovalyova, T.Ashcheulova. – Вінниця: Нова книга, 2006. – 424 с.
- Vasiuk V.L. Methods of patient clinical examination / V.L.Vasiuk, A.A.Shubravsky, O.I.Splavsky; by ed. O.I.Voloshin. – Chernovtsy: MPIC "Misto", 2006. – 134 p.

19.2. Auxillary

1. The Washington Manual of Medical Therapeutics (35 Edition) / Pavan Bhat [et al.]. - Publisher: LWW, 2016. – 954 p.
2. Thomas J. Oxford handbook of clinical examination and practical skills (1st Edition) / J.Thomas, T. Monaghan. - Oxford University Press, 2007. – 740p.
3. Christopher M. Wittich, et all. Mayo clinic internal medicine board review, 11th edition. – Mayo Clinic Scientific Press, Oxford University Press, New York, 2016. - 905p.

19.3 Information resources

1. <http://moodle.bsmu.edu.ua>
2. Medscape Official Site <https://www.medscape.com/>
3. McMaster textbook of internal medicine <https://empendium.com/mcmtextbook/>

20. COMPILERS OF THE STUDENT HANDBOOK (SYLLABUS)

Bobkovich K.O., Ph.D., *Associate Professor*

Glubochenko O.V., Ph.D., *Associate Professor*

Mykytiuk O.P., Ph.D., *Associate Professor*