



DISCIPLINE PROGRAM

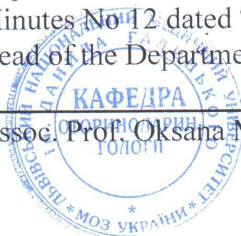
ББ. 1.98 «**Current issues of the upper respiratory tract and ear diseases**»

Discipline of Choice

Second (master's) level of higher education
Field of Knowledge 22 “Healthcare”
Specialty 222 “Medicine”
Faculty, year: Medicine, 4th year

Discussed and approved at the
educational-methodical meeting of the
Department of Otorhinolaryngology
Minutes No 12 dated “8” June 2023
Head of the Department

Assoc. Prof. Oksana MOSKALYK



Approved
by the Profile Methodical Board on
Surgical Disciplines
Minutes No20 dated 27 April 2023
Head of the Board

Prof. Viktor ANDRIUSHCHENKO



The discipline program « Current issues of the upper respiratory tract and ear diseases » was developed and imported at the Department of Otorhinolaryngology of Danylo Halytsky Lviv National Medical University for the 4th year students of Medicine Faculty by the Specialty 222 “Medicine”.

Changes and additions to the study program of the discipline during 2024-2027 academic years.

No	Content of changes (additions)	Minutes of the meeting of the Department, date	Notes

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INTRODUCTION

The program of an academic discipline of choice «Current issues of the upper respiratory tract and ear diseases»

according to the educational and professional program "Medicine"
The standard of higher education of the second (master's) level
fields of knowledge 22 Health care.
specialties 222 Medicine
Master of Medicine educational program.

Description of the academic discipline (abstract)

The study of the academic discipline is carried out in the 5th year of study.

The study of the discipline of otorhinolaryngology is carried out for two semesters at a higher education institution (HEI) in the field of health care.

The structure of the academic discipline	Number of credits, hours, of them			Study year, semester	type of control
	All	Auditory	SW		
		Practical classes (hours)			
Name of discipline: otorhinolaryngology	credits 2 /60 hours.	26	34	5 course (9,10 semester)	credit

Subject of study of the educational discipline "Current issues of the upper respiratory tract and ear diseases"

are methods of research of ENT organs, etiology, pathogenesis, diagnosis and treatment of the most common diseases of ENT organs, emergency care in otorhinolaryngology.

Interdisciplinary connections:

- internal diseases: to determine the tactics of patient management in the most common therapeutic diseases (PP.053); make a diagnosis and provide emergency care for major emergency conditions in the clinic of internal diseases (PP.085);
- surgery: provide emergency medical care for the most common surgical diseases (PP.034); to plan the examination of the patient, to interpret the results of laboratory and instrumental studies in the most common surgical diseases and their complications (PP.035);
- pathophysiology: interpret the causes, mechanisms of development and manifestations of typical pathological processes (item 208);

- radiology: choose the optimal method of radiological research to detect functional and morphological changes in the pathology of various organs and systems (PP.214);
- neurology: to determine the main symptoms and syndromes of damage to different parts of the nervous system (PP.118);
- Ophthalmology: make a preliminary diagnosis of the most common eye diseases and injuries (PP.257);
- phthisiatry: plan the examination scheme of a tuberculosis patient, analyze the received data and determine treatment regimens for patients with various clinical forms of tuberculosis (PP.076) and integrate with these disciplines.

1. The purpose and tasks of the educational discipline

1.1. The goal of teaching the educational discipline "Current issues of the upper respiratory tract and ear diseases" is to master the methods of diagnosis, treatment and prevention of ENT diseases, primarily the most common ones.

To achieve this educational goal, the student must know: clinical anatomy and physiology of ENT organs and modern methods of their research: etiology, pathogenesis, clinic, methods of treatment and prevention of diseases of the nose, paranasal sinuses, pharynx, larynx, external, middle and inner ear, and complications caused by them.

1.2. The main tasks of the study of the discipline " Current issues of the upper respiratory tract and ear diseases " are the study of the anatomy, physiology and pathology of the ear, upper respiratory tract and areas adjacent to them.

1.3 Competencies and learning outcomes, the formation of which contributes to the discipline (the relationship with the normative content of the training of higher education applicants, formulated in terms of learning outcomes in the Higher Education Standard). With the requirements of the Standard of Higher Education, the discipline ensures acquisition by students **Competencies:**

Integral competence:

- The ability to apply the acquired general and professional competences to solve complex tasks of the professional activity of a pediatrician and practical problems in the field of health care in the relevant position, the scope of which is provided by the specified lists of syndromes and symptoms of diseases, emergency conditions, physiological conditions and diseases that require special patient management tactics; laboratory and instrumental research, medical manipulations; issues of judicial and military expertise and/or implementation of innovations.
- The ability to solve complex problems, including those of a research and innovation nature in the field of medicine (pediatrics).
- Ability to continue learning with a high degree of autonomy.

General competences (GC):

- GC 1. Ability to abstract thinking, analysis and synthesis.
- GC 2. Ability to learn and master modern knowledge.
- GC 3. Ability to apply knowledge in practical situations.

- GC 4. Knowledge and understanding of the subject area and understanding of professional activity.
- GC 5. Ability to adapt and act in a new situation.
- GC 6. Ability to make informed decisions.
- GC 7. Ability to work in a team.
- GC 8. Ability to interpersonal interaction.
- GC 9. Ability to communicate in a foreign language.
- GC 10. Ability to use information and communication technologies.
- GC 11. Ability to search, process and analyze information from various sources.
- GC 12.. Determination and persistence in relation to assigned tasks and assumed responsibilities.
- GC 13. Awareness of equal opportunities and gender issues.
- GC 14. The ability to realize one's rights and responsibilities as a member of society, to be aware of the values of a civil (free democratic) society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine.
- GC 15. The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technologies, to use various types and forms of motor activity for active recreation and leading a healthy lifestyle.

Special (professional, subject) competences (PC)

- PC 1. Ability to collect medical information about the patient and analyze clinical data.
- PC 2. Ability to determine the necessary list of laboratory and instrumental studies and evaluate their results.
- PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.
- PC 4. Ability to determine the necessary regime of work and rest in the treatment and prevention of diseases.
- PC 5. Ability to determine the nature of nutrition in the treatment and prevention of diseases.
- PC 6. Ability to determine the principles and nature of treatment and prevention of diseases.
- PC 7. Ability to diagnose emergency conditions.
- PC 8. Ability to determine tactics and provide emergency medical assistance.
- PC 9. Ability to carry out medical evacuation measures.
- PC 10. Ability to perform medical manipulations.
- PC 11. Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.
- PC 12. Ability to carry out sanitary and hygienic and preventive measures.
- PC 13. Ability to plan and carry out preventive and anti-epidemic measures regarding infectious diseases.
- PC 14. Ability to conduct medical and social examination and examination of working capacity.
- PC 15. Ability to maintain medical documentation, including electronic forms.
- PC 16. The ability to assess the influence of the environment, socio-economic and biological determinants on the state of health of an individual.
- PC 17. The ability to analyze the activity of a doctor, unit, health care institution, ensure the quality of medical care for the population and increase the efficiency of the use of medical resources.
- PC 18. The ability to organize and integrate the provision of medical assistance to the population and the marketing of medical services.
- PC 19. Ability to conduct epidemiological and medical-statistical research on the health of children and adults; processing of social, economic and medical information.
- PC 20. Clearly and unambiguously communicate one's own knowledge, conclusions and arguments on

health care problems and related issues to specialists and non-specialists, in particular to people who are studying.

PC 21. Ability to manage healthcare workflows that are complex, unpredictable and require new strategic approaches

PC 22. Ability to develop and implement scientific and applied projects in the field of health care.

PC 23. Adherence to ethical principles when working with patients and laboratory animals.

PC 24. Adherence to professional and academic integrity, to be responsible for the reliability of the obtained scientific results.

Matrix of competences

No	Competence	Knowledge	Skill	Communication	Autonomy and responsibility
1.	<i>Ability to abstract thinking, analysis and synthesis.</i>	Have specialized conceptual knowledge acquired in the process of learning from the discipline.	To be able to solve tasks and problems that arise in professional activity.	Clear and unambiguous presentation of one's own conclusions, knowledge and explanations.	To be responsible for making decisions and tasks in complex conditions.
2.	<i>Ability to learn and master modern knowledge.</i>	Have knowledge of the structure of professional activity. Improve knowledge.	To be able to carry out professional activities that require updating and integration of knowledge.	The ability to effectively form a communication strategy in professional activities.	To be responsible for professional development, the ability for further professional training with a high level of autonomy.
3.	<i>Ability to apply knowledge in practical situations.</i>	Have specialized conceptual knowledge acquired in the learning process.	To be able to solve tasks and problems that arise in practical situations.	The ability to form a communication strategy in professional activities.	Be responsible for making decisions in practical situations.
4.	<i>Knowledge and understanding of the subject area and understanding professional activity.</i>	Have specialized conceptual knowledge of professional activity acquired in the process of training.	To be able to solve tasks and problems that arise in professional activity.	The ability to form a communication strategy in professional activities.	Be responsible for making decisions and understand complex ones conditions
5.	<i>Ability to adapt and act in a new situation.</i>	Have knowledge of the structure of professional activity. Adapt to a new situation.	To be able to carry out professional activities that require updating and	The ability to form a communication strategy in professional	Be responsible for making your own decisions in

			integration of knowledge.	activities in a new situation.	difficult conditions and new situations.
6.	Ability to make informed decisions.	Have knowledge of the structure of professional activity, accept reasoned decisions.	Be able to carry out professional activities that require updating knowledge.	Використовувати спілкування та навички міжособистісної взаємодії.	Нести відповідальність за вибір та тактику способу комунікації.
7.	Ability to work in a team.	Know the tactics and strategy of communication, laws and methods of communicative behavior.	Be able to choose communication methods and strategies to ensure effective teamwork	Use communication strategies and interpersonal skills.	Be responsible for the way of communication.
8.	Ability to interpersonal interaction.	Have knowledge of the structure of professional activity and methods of communicative behavior.	Be able to carry out professional activities that require updating knowledge and interaction.	Use strategies of communication and interpersonal interaction.	Be responsible for the choice and method of communication.
9.	Ability to communicate in the native language both orally and in writing; the ability to communicate in a foreign language.	Have knowledge of the native language and basic knowledge of a foreign language.	To be able to apply knowledge of the native language, both orally and in writing, to be able to communicate in a foreign language.	Use with professional and business communication and in preparation of native documents Use foreign language in professional activity	To be responsible for fluency in one's native language, for the development of professional knowledge.
10.	Ability to use information and communication technologies.	Have knowledge in the field of information and communication technologies used in professional activities.	To be able to use information and communication technologies in a professional field that requires updating and integration of knowledge.	Use information and communication technologies in professional activity	Carry responsibility for development, renewal professional knowledge and skills.
11.	Ability to search, process and analyze information from various sources.	Have knowledge of the structure of professional activity. Analyze information from various sources.	To be able to carry out professional activities that require updating and integration of knowledge.	Use information and communication technologies in professional activity	Carry responsibility for development professional knowledge and skills. Analyze information from various sources.
12.	Determination and persistence in relation to	Know the responsibilities and ways of performing assigned tasks.	To be able to determine the goal and set tasks, to be persistent and	Establish interpersonal connections for effective	To be responsible for implementation delivered

	<i>assigned tasks and assumed responsibilities</i>		conscientious in the performance of duties.	performance of the assigned tasks and responsibilities	tasks and responsibilities
<i>Special (professional, subject) competences</i>					
1.	<i>Ability to collect medical information about the patient and analyze clinical data.</i>	Know the methods of examination (describe and collect complaints, medical history of the patient's life, conduct diagnostics, prescribe treatment	To be able to evaluate the results of examination of ENT organs.	To comply with the requirements of ethics, bioethics and deontology in their professional activities.	To be responsible for the high-quality performance of assigned tasks.
2.	<i>Ability to determine the necessary list of laboratory and instrumental studies and evaluate their results.</i>	Know the methods of conducting examinations and laboratory tests.	Be able to analyze the results of laboratory and instrumental research.	reasonable and evaluate the results of examinations and laboratory tests in the practice of an otolaryngologist.	Be responsible for decision-making regarding the evaluation of examinations and results of laboratory studies.
3.	<i>Ability to establish a preliminary and clinical diagnosis of the disease</i>	Know examination methods (describe and collect complaints, medical history of the patient's life, conduct an examination.)	To be able to analyze and evaluate the results of examination of ENT organs, diagnostic methods.	to conduct an examination of the patient, establish a clinical diagnosis of the disease.	To be responsible for the development of professional knowledge and skills in the examination of ENT organs.
4.	<i>The ability to determine the necessary regime of work and rest in the treatment and prevention of diseases.</i>	Know (describe and collect complaints, medical history of the patient's life, conduct an examination, prescribe treatment.	To be able to analyze and evaluate the results of examination of ENT organs, prescribe treatment.	to conduct a reasonable examination of the patient, establish a clinical diagnosis, and prescribe treatment.	To be responsible for the development of professional knowledge and skills
5.	<i>The ability to determine the nature of nutrition during the treatment and prevention of diseases.</i>	Know (describe and collect complaints, medical history of the patient's life, conduct an examination, prescribe treatment.	To be able to analyze and evaluate the results of examination of ENT organs, prescribe treatment.	to conduct a reasonable examination of the patient, establish a clinical diagnosis, and prescribe treatment.	To be responsible for the development of professional knowledge and skills
6.	<i>The ability to determine the nature of principles and</i>	Know (describe and collect complaints, medical history of the patient's life, conduct an	To be able to analyze and evaluate the results of examination of ENT organs,	to conduct a reasonable examination of the patient, establish a	To be responsible for the development of professional

	<i>the nature of treatment and prevention of diseases.</i>	examination, prescribe treatment.	prescribe treatment.	clinical diagnosis, and prescribe treatment.	knowledge and skills
7.	<i>Ability to diagnose emergency conditions.</i>	Know (describe and collect complaints, medical history of the patient's life, conduct an examination, prescribe treatment.	To be able to analyze and evaluate the results of examination of ENT organs, prescribe treatment.	to conduct reasonable an examination of the patient, establish a clinical diagnosis, and prescribe treatment.	To be responsible for the development of professional knowledge and skills
8.	<i>Ability to determine tactics and provide emergency medical care.</i>	Know examination methods (describe and collect complaints, medical history of the patient's life, prescribe treatment (know the doses of drugs), provide the necessary assistance.	To be able to analyze and evaluate the results of examination of ENT organs, diagnose emergency conditions, and prescribe treatment. (know the doses of drugs)	to conduct reasonable an examination of the patient, establish a clinical diagnosis, and prescribe treatment.	To be responsible for the development of professional knowledge and skills in the provision of emergency medical care.
9.	<i>Ability to carry out medical evacuation measures.</i>	Know examination methods (describe and collect complaints, medical history of the patient's life, prescribe treatment, (performance of manipulations.)	Be able to analyze and evaluate the results of the examination of the ENT organs, prescribe treatment (manipulations).	to conduct reasonable an examination of the patient, establish a clinical diagnosis, and prescribe treatment.	Bear responsibility for the development of professional knowledge and skills in medical and evacuation measures.
10.	<i>Ability to perform medical manipulations.</i>	Know examination methods (describe and collect complaints, medical history of the patient's life, prescribe treatment, (performance of manipulations.)	Be able to analyze and evaluate the results of the examination of the ENT organs, prescribe treatment (manipulations).	to conduct reasonable an examination of the patient, establish a clinical diagnosis, and prescribe treatment.	To be responsible for the development of professional knowledge and skills in performing medical manipulations
11.	<i>Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and</i>	Know and solve medical problems in new or unfamiliar environments.	Be able to analyze and evaluate results when solving medical problems in new or unfamiliar environments.	Reasonably evaluate and solve medical problems, taking into account the aspects of social and ethical responsibility.	Be responsible for the development of professional knowledge and skills, taking into account the aspects of social and ethical responsibility.

	<i>ethical responsibility.</i>				
12.	<i>Ability to carry out sanitary and hygienic and preventive measures.</i>	Know the methods of carrying out sanitary and hygienic and preventive measures in the practice of an otolaryngologist.	Be able to analyze and evaluate medical information when carrying out sanitary and hygienic and preventive measures.	to conduct reasonable an examination of the patient, to establish a clinical diagnosis, to carry out preventive measures.	To be responsible for the development of professional knowledge and skills in carrying out sanitary and hygienic and preventive measures.
13.	<i>Ability to plan and carry out preventive and anti-epidemic measures for infectious diseases.</i>	Know the methods of development, planning and implementation of preventive and anti-epidemic measures for infectious diseases.	Be able to analyze and evaluate social and medical information.	to conduct reasonable an examination of the patient, establish a clinical diagnosis, and prescribe treatment.	To be responsible for the development of professional knowledge when carrying out preventive and anti-epidemic measures regarding infectious diseases.
14.	<i>Ability to maintain medical documentation, including electronic forms.</i>	Know the rules and standards of medical documentation, including electronic forms.	Be able to keep medical records.	Use standard approaches to maintaining medical records.	To be responsible for the correctness of medical documentation in otolaryngology.
15.	<i>The ability to assess the influence of the environment, socio-economic and biological determinants on the state of health of an individual.</i>	To know the methods of influence of the environment on the state of health of an individual (including children and adolescents), family, population in otorhinolaryngology.	To be able to analyze and evaluate the influence of the environment, socio-economic and biological determinants on the state of health in diseases of the ENT organs.	Use standard approaches to information evaluation.	To be responsible for the development of professional knowledge and skills
16.	<i>Adherence to ethical principles when working with patients and laboratory animals.</i>	Know the methods of ethical principles when working with patients.	Be able to analyze and evaluate social and medical information.	To comply with the requirements of ethics, bioethics and deontology in their professional activities.	To be responsible for the high-quality performance of assigned tasks.

17.	<i>Adherence to professional and academic integrity, to be responsible for the reliability of the obtained scientific results.</i>	Know the methods of professional and academic integrity, bear responsibility for the reliability of the obtained scientific results.	To be able to analyze and evaluate professional integrity.	Maintain professional and academic integrity.	Be responsible for the reliability of the obtained scientific results
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Compliance with the definition of learning outcomes standards and competencies.

Program learning result code (LRC)	Learning outcome	Competency code (GC, PC)
LRC1	Have a solid knowledge of the structure of professional activity. To be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, the ability for further professional training with a high level of autonomy.	GC1, GC2, GC3, GC4, GC5, GC6, GC7, GC8, GC9, GC10, GC11, GC12, GC13, GC14, GC15; PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC10, PC11, PC13, PC14, PC16, PC17, PC24, PC25.
LRC 2	Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient for solving professional tasks in the field of health care.	GC4, GC6, GC10, GC11, GC12; PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC10, PC11, PC13, PC14, PC15, PC17, PC24.
LRC 3	Specialized conceptual knowledge, which includes scientific achievements in the field of health care and is the basis for conducting research, critical understanding of problems in the field of medicine and related interdisciplinary (including pediatric) problems.	GC1, GC2, GC3, GC6, GC7, GC9, GC10, GC11, GC12; PC1, PC2, PC3, PC11, PC24, PC25.
LRC 4	Identify leading clinical symptoms and syndromes; according to standard methods, using preliminary data of the patient's history, data of the patient's examination, knowledge about the person, his organs and systems, to establish a preliminary clinical diagnosis of the disease.	GC3, GC4; PC16, PC24.
LRC 5	Collect complaints, history of life and diseases, evaluate psychomotor and physical development of adult patients and children, the state of organs and body systems, based on the results of laboratory and instrumental studies, evaluate information about the diagnosis, taking into account the age of the patient.	GC1, GC2, GC3, GC6, GC7; PC1, PC2, PC3, PC7, PC8, PC11, PC16, PC24.
LRC 6	To establish the final clinical diagnosis by	GC1, GC2, GC3, GC6, GC7,

	making a reasoned decision and analyzing the received subjective and objective data of clinical, additional examination, differential diagnosis, observing the relevant ethical and legal norms, under the control of the head physician in the conditions of the health care institution.	GC8; PC1, PC2, PC3, PC7, PC8, PC11, PC16, PC24;
LRC 7	Prescribe and analyze additional (obligatory and optional) examination methods (laboratory, functional and/or instrumental) of patients with diseases of organs and body systems for differential diagnosis of diseases.	GC8; PC1, PC2, PC16, PC24.
LRC 8	To determine the main clinical syndrome or what causes the severity of the victim's/victim's condition by making a reasoned decision and assessing the person's condition under any circumstances (in the conditions of a health care facility, outside its borders), including in conditions of emergency and hostilities, in field conditions, in conditions of lack of information and limited time.	GC3, GC4; PC5, PC6, PC7, PC8, PC9, PC10, PC11, PC24.
LRC 9	Determine the nature and principles of treatment (conservative, operative) of patients with diseases, taking into account the age of the patient, in the conditions of a health care institution, outside its borders and at the stages of medical evacuation, including in field conditions, on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes, in case of the need to expand the standard scheme, be able to substantiate personalized recommendations under the control of the head physician in the conditions of a medical institution.	PC1, PC2, PC6, PC7, PC8, PC10, PC12;
LRC10	Determine the necessary regime of work, rest and nutrition of adults, children and adolescents on the basis of the final clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.	GC4; PC4, PC5, PC24.
LRC11	To assess the general condition of a newborn child by making a reasoned decision according to existing algorithms and standard schemes, observing the relevant ethical and	GC4; PC1, PC2, PC3, PC6, PC7, PC8, PC12.

	legal norms.	
LRC12	Assess and monitor the child's development, provide recommendations on feeding and nutritional features depending on age, organize preventive vaccinations according to the calendar.	GC3, GC6, GC12; PC1, PC7, PC8, PC9, PC10, PC11.
LRC13	Determine tactics and provide emergency medical care in emergency situations under conditions of limited time in accordance with existing clinical protocols and standards of treatment.	GC5, GC7, GC8; PC1, PC7, PC11, PC17.
LRC14	To organize the provision of medical aid and medical evacuation measures to the population and military personnel in emergency situations and hostilities, including in field conditions.	GC7, GC8.
LRC15	Form rational medical routes for patients; organize interaction with colleagues in their own and other institutions, organizations and institutions; to apply tools for the promotion of medical services in the market, based on the analysis of the needs of the population, in the conditions of the functioning of the health care institution, its division, in a competitive environment.	PC3, PC7, PC10, PC11.
LRC16	Perform medical manipulations in the conditions of a medical institution, at home or at work on the basis of a preliminary clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, observing the relevant ethical and legal norms.	GC14, GC15; PC7, PC11, PC17.
LRC17	To determine the state of functioning and limitations of a person's vital activities and the duration of incapacity for work with the preparation of relevant documents, in the conditions of a health care institution, based on data about the disease and its course, peculiarities of a person's professional activity, etc. Maintain medical documentation regarding the patient and the contingent of the population on the basis of regulatory documents.	PC13, PC14, PC17.
LRC18	Plan and implement a system of anti-epidemic and preventive measures regarding the occurrence and spread of diseases among the population.	PC14.
LRC19	Analyze the epidemiological situation and carry out measures for mass and individual,	GC10, GC11.

	general and local prevention of infectious diseases.	
LRC20	Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information.	GC2, GC9, GC10.
LRC21	Apply modern digital technologies, specialized software, and statistical data analysis methods to solve complex healthcare problems.	GC5; PC13, PC17.
LRC22	Assess the impact of the environment on human health in order to assess the morbidity of the population.	PC14, PC17.
LRC23	To organize the necessary level of individual safety (own and the persons he cares for) in case of typical dangerous situations in the individual field of activity.	GC7.
LRC24	clear and unambiguous to convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists.	GC5, GC6; PC11, PC17.
LRC25	Manage work processes in the field of health care, which are complex, unpredictable and require new strategic approaches, organize the work and professional development of personnel taking into account the acquired skills of effective teamwork, leadership positions, appropriate quality, accessibility and justice, ensuring the provision of integrated medical help.	GC2, GC8.
LRC26	Communicate freely in the national and English languages, both orally and in writing to discuss professional activities, research and projects.	GC5, GC6, GC7, GC8, GC15; PC11.
LRC27	Make effective decisions about health care problems, evaluate the necessary resources, take into account social, economic and ethical consequences.	GC12, GC15.
LRC28	Plan, organize and carry out measures for the specific prevention of infectious diseases, including in accordance with the National calendar of preventive vaccinations, both mandatory and recommended. Manage vaccine residues, organize additional vaccination campaigns, including immunoprophylaxis measures.	GC14, GC15; PC13, PC14.

Learning outcomes:

The student should be able to:

1. To evaluate the results of examination of ENT organs:

Use a frontal reflector and a frontal illuminator.

Carry out anterior rhinoscopy, assess the condition of the nasal cavity in normal conditions and in case of deviations from the norm.

Perform a posterior rhinoscopy, assess the condition of the posterior parts of the nose and the nasal part of the pharynx in normal conditions and in case of deviations from the norm. Perform an oropharyngoscopy, assess the condition of the oral cavity and the oral part of the pharynx in normal conditions and in case of deviations from the norm. Perform an indirect laryngoscopy, assess the condition of the laryngeal part of the pharynx and larynx in normal conditions and in case of abnormalities. Carry out an otoscopy, assess the condition of the external auditory meatus and eardrum in normal conditions and in case of deviations from the norm.

2. Recognize the most common ENT diseases and their complications:

Among the complaints and data of the patient's anamnesis, select symptoms that give grounds to suspect the presence of ENT diseases, find out the causes of the disease. Evaluate and compare the most informative and objective signs inherent in these diseases.

Compare subjective and objective data confirming the patient's diagnosis.

Explore hearing with the help of "live" speech and tuning forks. Evaluate typical types of audiogram in the norm, in case of violation of the sound-conducting, sound-receiving apparatus and their combined damage.

Evaluate the data of X-ray examination of radiographs of the nose and paranasal sinuses, temporal bone, pharynx, larynx, computer or magnetic resonance imaging.

Evaluate the data of laboratory methods of research (general blood test, coagulogram, cerebrospinal fluid, contents of paranasal sinuses).

Establish a preliminary diagnosis and be able to carry out differential diagnosis of ENT diseases.

3. Prescribe treatment of these diseases.

Make a plan for examination of ENT organs. Draw up a treatment plan for a patient with the specified pathology.

If necessary, carry out manipulations: lubricate the mucous membrane of the nasal cavity and pharynx; perform surface anesthesia of the mucous membrane of the nasal cavity and pharynx;

Prescribe the appropriate treatment of ENT diseases, draw up a treatment plan for patients.

Студент повинен оволодіти:

1. Endoscopic methods of examination of ENT organs:

order, methods and techniques of examination of an otorhinolaryngological patient.

normal endoscopic picture of the nose, pharynx, larynx and ear, as well as possible typical pathological deviations in their endoscopic picture.

master the technique of using a forehead reflector or forehead illuminator, learn the technique and practice the technique of endoscopic examination of an otorhinolaryngological patient (anterior and posterior rhinoscopy, oropharyngoscopy, indirect laryngoscopy, otoscopy).

2. The most used practical skills:

be able to perform typical manipulations: washing and toileting of the ear, removing a sulfur plug and a foreign body, introducing ear drops into the tympanic cavity and auditory tube by the compression method, placing a turunda in the ear, pneumomassage of the tympanic membrane, blowing out the auditory tubes according to the Politzer method, applying an ear bandage, to have an idea about the technique of catheterization of the auditory tube.

carry out the following manipulations: taking swabs from the nose and throat, lubricating, irrigating and insufflating the pharynx with medicinal substances, washing lacunae, examining nasal breathing in children with hypertrophy of the pharyngeal tonsils.

be able to infuse medicinal substances into the larynx, apply a compress to the neck.

learn the skills of using a tracheostomy cannula and tracheostomy care.

3. *Methods of providing emergency care to patients with injuries, foreign bodies, bleeding from the ENT organs and stenoses of the upper respiratory tract:*

perform a toilet of the nasal cavity, introduce turunds into the common nasal passage, carry out anemization of the mucous membrane of the nasal cavity (application, infiltration).

perform an examination (external examination, palpation of the condition of the lymph nodes), assess the condition of the mucous membrane (presence or absence of hyperemia, infiltration, edema, adequacy of the glottis for breathing, mobility of the structures of the larynx)

серед скарг і даних анамнезу хворого вибрати симптоми, що дають підстави запідозрити presence of a foreign body, combined trauma. Perform an examination of the nose, pharynx and larynx. Highlight the most informative and objective signs confirming the presence of foreign bodies, injuries, bleeding. Evaluate the data of radiographs, computer and magnetic resonance imaging. Draw up a treatment plan for a patient with this pathology. Remove foreign bodies from the ear, nose and throat.

Do anterior and posterior nose tamponade. Provide first aid for an injury to the tympanic membrane, contusion of the middle and inner ear, and hematoma. Reposition bone fragments of the nose. Put a sling-shaped bandage on the nose.

Students should know:

Semiotics, diagnosis, differential diagnosis, treatment and prevention, dispensation, issues of performance examination of the most common, urgent, life-threatening and socially significant ENT diseases.

Students should be able to:

1. Obtain information about diseases, identify general and specific signs of diseases of the ENT organs, especially in cases requiring emergency care.

2. To determine the need for special methods of research of ENT organs (laboratory, radiation, functional, etc.), to be able to interpret their results.

3. Carry out a differential diagnosis of diseases of the ENT organs, justify the clinical diagnosis, the patient's management plan, determine the indications and the urgency of referring the patient to an otorhinolaryngologist.

4. Provide first aid in case of emergency.

5. Carry out primary and secondary prevention of ENT diseases.

6. Promote a healthy lifestyle.

2. Information volume of the academic discipline

2 ECTS credits, 60 hours, are assigned to the study of the academic discipline.

Content sections:

1. Research methods of ENT organs;

2. Ear disease;

3. Diseases of the upper respiratory tract;
4. Emergency care for diseases of the ENT organs.

3. The structure of the academic discipline

Topic	Практичні (семінарі кі) заняття	СРС
Chapter 1 Research methods of ENT organs	3	
1. Topic 1. Endoscopic methods of research of ENT organs.		
Chapter 2 Diseases of the ear	3	
1. Topic. Diseases of the outer and middle ear: otitis externa, acute purulent otitis media, complications.	3	
2. Topic. Chronic ear diseases: purulent otitis media (mesotympanitis, epitympanitis), labyrinthitis, basics of tympanoplasty.	3	
3. Topic. Non-purulent diseases of the ear: catarrh of the middle ear, sensorineural deafness, otosclerosis, Meniere's disease.	12	
Chapter 3 Diseases of the upper respiratory tract	3	
1. Topic 5. Diseases of the nose: curvature of the nasal septum, boils of the nose, rhinitis. Acute and chronic sinus diseases: rhinosinusitis, orbital and intracranial rhinogenic complications.		
2. Topic 6. Diseases of the pharynx: acute and chronic pharyngitis, leptotrichosis, classification of tonsillitis, primary and secondary tonsillitis, complications of tonsillitis, pharyngeal abscess, diphtheria of the pharynx. Chronic tonsillitis, hypertrophy of palatine and pharyngeal tonsils.	3	
3. Topic 7. Diseases of the larynx: stenosis of the larynx, acute laryngitis, laryngitis, phlegmonous laryngitis, chondroperichondritis of the larynx. Acute laryngotracheitis in children, diphtheria of the larynx, chronic laryngitis, precancerous diseases of the larynx. Tracheotomy.	4	
Chapter 4 Emergency care for diseases of the ENT organs	10	
1. Topic 8. Injuries of ENT organs, nosebleeds. Foreign bodies of ENT organs. Emergencies in ENT.		
	4	
Total 60/2 credits ECTS	26	
Final control		Credit

4. Thematic plan of practical (seminar) classes

№ з.п.	TOPIC	hours
1.	Endoscopic methods of examination of ENT organs.	3
2.	Diseases of the outer and middle ear: otitis externa, acute purulent otitis media and complications.	3

3.	Chronic ear diseases: chronic purulent inflammation of the middle ear (mesotympanitis, epitympanitis), labyrinthitis, otogenic intracranial complications.	3
4.	Non-purulent diseases of the ear: catarrh of the middle ear, sensorineural deafness, otosclerosis, Meniere's disease.	3
5.	Diseases of the nose: curvature of the nasal septum, boils of the nose, rhinitis. Acute and chronic sinus diseases: rhinosinusitis, orbital and intracranial rhinogenic complications.	3
6.	Diseases of the pharynx: acute and chronic pharyngitis, leptotrichosis, classification of tonsillitis, primary and secondary tonsillitis, complications of tonsillitis, pharyngeal abscess, diphtheria of the pharynx. Chronic tonsillitis, hypertrophy of palatine and pharyngeal tonsils.	3
7.	Diseases of the larynx: stenosis of the larynx, acute laryngitis, laryngeal angina, phlegmonous laryngitis, chondroperichondritis of the larynx. Acute laryngotracheitis in children, diphtheria of the larynx, chronic laryngitis, precancerous diseases of the larynx. Tracheotomy.	4
8.	Injuries of the ENT organs, nosebleeds. Foreign bodies of the ENT organs. Emergencies in ENT..	4
	Total	26

5. Thematic plan of students' independent work

№	TOPIC	hpurs	type of control
3.И.			
1.	Cryotherapy in otorhinolaryngology.	2	Abstract, presentation
2.	Radio wave surgery in otorhinolaryngology: indications, tools, technique.	2	
3.	Professional diseases of the inner ear, prevention.	3	
4.	Intracranial complications of otitis: modern principles diagnostics and treatment.	3	
5.	Acute and chronic rhinosinusitis: etiology, diagnosis, treatment, indications for surgical treatment.	3	
6.	Chronic otitis: indications for surgical treatment, types and technique of operations.	3	
7.	Chronic laryngeal stenoses: etiology, methods of surgical rehabilitation, indications for them.	3	
8.	Tumors of the larynx. Methods of early diagnosis, indications and types of surgical interventions for laryngeal cancer.	2	
9.	Congenital malformations of the external and middle ear. Classification. Types of operative treatment.	3	
10.	Ear tumors, early diagnosis and treatment.	2	
11.	Tumors of the nose and pharynx: early diagnosis and treatment.	2	
12.	Modern methods of rehabilitation of voice function in diseases of the larynx.	2	
13.	cysts of the neck. Diagnosis, treatment.	2	
14.	Polyposis rhinosinusitis. Etiology, modern methods of treatment.	2	

7. Individual tasks - Individual tasks are not planned by the curriculum.

8. Teaching methods:

The types of educational activities of students according to the curriculum are:

- practical classes;
- independent work of students (CPC);
- consultations;

Practical classes are provided:

- study of otorhinolaryngology discipline ;
- acquisition of practical skills.

During the "Otorhinolaryngology" cycle, students have the opportunity to work with dummies, on which they practice the methods of diagnosis and treatment of a certain ENT pathology. At the practical classes, videos are shown describing the basic points of anatomy and physiology of ENT organs, as well as methods of diagnosing ENT diseases. In addition, clinical analyzes of individual situations are carried out using the examples of clinic patients. When studying the discipline "Otorhinolaryngology", various teaching methods are used, namely: verbal (verbal), visual and practical methods, which include both the presentation of material by the teacher (lecture, story, explanation, conversation) and students' work with a book (textbook , reference, popular science and educational literature) and computer programs or the Internet global network; working with handouts, performing test tasks, etc.

During lectures, the following methods are used: explanatory-illustrative, or information-receptive method (narration, lecture, explanation, work with handouts, textbook, demonstration, etc.) Multimedia presentation is used when teaching the educational material of the lecture.

Independent work of students is evaluated during the current control of the topic in the corresponding lesson. The learning of topics that are assigned only to independent work is controlled during the final control.

The purpose of studying the discipline: deepening the theoretical knowledge and increasing the practical training of graduates based on the knowledge and skills in otorhinolaryngology acquired in the process of studying at the university to the level necessary for their independent work.

The task of studying the discipline:

1. Mastering modern practical skills in otorhinolaryngology.
2. Mastering the methods of diagnosis, treatment, prevention and performance examination of the most common, urgent and socially significant ENT diseases.

The results of mastering the discipline:

Students must acquire the competencies of mastering modern practical skills in otorhinolaryngology, learn the methods of diagnosis, treatment, as well as the principles of prevention and approaches to carrying out the examination of work capacity for ENT diseases.

Control methods

Current control is carried out on the basis of control of theoretical knowledge, skills and abilities.

Forms of current control:

1. Oral survey (frontal, individual, combined);
2. Practical verification of formed professional skills;

3. Test control (open and closed test tasks).

Current control is carried out during training sessions and is aimed at checking students' assimilation of educational material. The form of ongoing control during training sessions is determined by the work curriculum of the discipline.

Assessment of current educational activities. During the evaluation of the mastery of each topic for the current educational activity, the student is given grades on a 4-point (traditional) scale, taking into account the approved evaluation criteria for the relevant discipline. At the same time, all types of work provided by the educational program are taken into account. The student must receive a grade in each topic. Forms of assessment of current educational activities are standardized and include control of theoretical and practical training.

The department uses the following evaluation criteria according to the traditional 4-point scale:

Excellent "5".- The student impeccably mastered the theoretical material of the subject of the lesson, correctly answered 90-100% of tests of format A. Demonstrates deep and comprehensive knowledge of the relevant topic, the main provisions of scientific primary sources and recommended literature, correctly, clearly and logically and fully answers all standardized questions of the current topic, knows well the material of the previous topics (initial level of knowledge), answers the questions of the lecture course and questions from independent work. Demonstrates a high level of assimilation of practical skills. Makes a generalization of the material, supplements his answer with knowledge of additional literature. Completed all the tasks provided for by methodical developments during the student's independent work.

Wrote an essay on the proposed topic or made a presentation on my own (individual work).

Good "4". The student mastered the theoretical material of the lesson well, answered 70-90% of format A tests correctly. He has the basic aspects of primary sources and recommended literature. Correctly, sometimes with the help of explanatory questions, answers standardized questions of the current topic, knows the material of previous topics (initial level of knowledge), answers questions from the lecture course and questions from independent work. Performs practical skills correctly. Completed all the tasks provided for by methodical developments during the student's independent work.

Satisfactory "3". The student mainly mastered the theoretical knowledge of the educational topic, correctly answered 60-70% of tests of format A. Orients himself in primary sources and recommended literature. Incompletely, with the help of explanatory questions, answers standardized questions of the current topic, questions from the material of previous topics (initial level of knowledge), inaccurately and incompletely answers questions from the lecture course and questions from independent work. Cannot independently construct a clear, logical answer. During the answer, the student makes minor mistakes or does not fully know the topics of the current class and previous classes. He did not fully complete the tasks provided for by methodical developments during the student's independent work.

Unsatisfactory "2". The student has not mastered the educational material of the topic, answered less than 60% of tests of format A. Does not know the material of the current topic. Or answers the questions of the current topic insufficiently, incompletely, cannot construct a logical answer, does not answer additional questions, does not understand the content of the material, does

not know questions from the material of previous topics (initial level of knowledge), does not answer questions from the lecture course and questions from independent work. During the answer and demonstration of knowledge of practical skills, the student makes significant, gross mistakes. The student does not know the topic of the current class and previous classes. Did not complete the tasks provided for by methodical developments during the student's independent work.

Form of final control of study success:

For a discipline of choice, the form of final control is a credit.

The maximum number of points that a student can score for the current educational activity while studying the discipline is **200 points**.

The minimum number of points that a student must score for the current educational activity in order to enroll in the discipline is **120 points**. The calculation of the number of points is carried out on the basis of the grades received by the student on a traditional scale during the study of the discipline during the semester, by calculating the arithmetic average (SA), rounded to two decimal places.

The obtained value is converted into points on a multi-point scale as follows:

$$x = \frac{CA \times 200}{5}$$

4-point scale	200-point scale
5	200
4.97	199
4.95	198
4.92	197
4.9	196
4.87	195
4.85	194
4.82	193
4.8	192
4.77	191
4.75	190
4.72	189
4.7	188
4.67	187
4.65	186
4.62	185
4.6	184
4.57	183
4.52	181
4.5	180
4.47	179

4-point scale	200-point scale
4.45	178
4.42	177
4.4	176
4.37	175
4.35	174
4.32	173
4.3	172
4.27	171
4.24	170
4.22	169
4.19	168
4.17	167
4.14	166
4.12	165
4.09	164
4.07	163
4.04	162
4.02	161
3.99	160
3.97	159
3.94	158

4-point scale	200-point scale
3.92	157
3.89	156
3.87	155
3.84	154
3.82	153
3.79	152
3.77	151
3.74	150
3.72	149
3.7	148
3.67	147
3.65	146
3.62	145
3.57	143
3.55	142
3.52	141
3.5	140
3.47	139
3.45	138
3.42	137
3.4	136

4-point scale	200-point scale
3.37	135
3.35	134
3.32	133
3.3	132
3.27	131
3.25	130
3.22	129
3.2	128
3.17	127
3.15	126
3.12	125
3.1	124
3.07	123
3.02	121
3	120
Less 3	Not enough

Methodological support:

Methodical instructions for students and teachers, workbooks, tables, models, diagrams, educational films, surgical instruments are used by students at the Department of Otorhinolaryngology.

14. Recommended literature

Basic:

1. Otorhinolaryngology: textbook / Yu.V. Mitin, Yu.V. Deyeva, Ya.Yu. Gomza et al. — 6th edition. – Kyiv: «MEDICINE». – 2020. – 264 p.

Additional:

1. Cummings Otolaryngology: Head and Neck Surgery, Paul W. Flint; Bruce H. Haughey et al. - 7th edition. – Elsevier. – 2020. – 3568 p.

2. ENT Secrets. Melissa A. Scholes, Vijay R. Ramakrishnan. — 5th edition. – Elsevier. – 2022. – 604 p.

3. Roland, N. Key Topics in Otolaryngology and Head & Neck Surgery/ ed. : N. Roland, D. McRae, A. W. McCombe. - 3rd ed. - Stuttgart ; New York : Thieme, 2019. - 490 p. : il. - Index: p. 479-490. – ISBN 978-3-13-240477-9

4. Flint, P. W. Cummings Otolaryngology. Head and Neck Surgery : international edition / P. W. Flint, H. W. Francis, B. H. Haughey [et al.]. - 7th ed. - Philadelphia : Elsevier, 2021 - . - ISBN 978-0-323-61179-4. - Vol. 3. - 1316 p.

5. Fokkens W.J., Lund V.J., Hopkins C. et al. (2020) European Position Paper on Rhinosinusitis and Nasal Polyps 2020. Rhinology, 58(Suppl. S29): 1–464. doi: 10.4193/Rhin20.600.

Information resources

1. <https://www.bmj.com/>

2. <https://www.uptodate.com/>

3. <https://www.clinicalkey.com/>

4. <https://www.osmosis.org/>

5. <https://3d4medical.com/>

6. <https://pubmed.ncbi.nlm.nih.gov/>

7. website of the National Library of Ukraine named after V.I. Vernadsky

8. -website of the National Scientific Medical Library of Ukraine

9. -An electronic database of scientific publications from the National Medical Library of the National Institutes of Health of the United States.

10. Educational portal of NMU named after O.O. Bogomolets.

11. <http://anatomia.at.ua/>

12. <http://www.anatomyatlases.org/>

13. <https://aucklandanatomy.com/>

14. <http://www.anatomatlas.com/>

15. <http://www.healthline.com/human-body-maps>