**MINISTRY OF HEALTH OF UKRAINE**

**ODESA NATIONAL MEDICAL UNIVERSITY**

Department of Otorhinolaryngology

|  | **I APPROVE**  Vice-rector for scientific and pedagogical work  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Eduard Buryachkivskyi  September 01, 2023 |
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|  |  |

**WORK PROGRAM OF THE ELECTIVE DISCIPLINE**

**"INFLAMMATORY AND NON-INFLAMMATORY DISEASES OF THE LARYNX. STENOSIS OF THE LARYNX**".

**Level of higher education:** second (master's)

**Field of knowledge:** 22 "Health care"

**Specialty:** 222 "Medicine"

**Educational and professional program**: Medicine

**2023**

The work program is based on the educational and professional program "Medicine" for the training of specialists of the second (master's) level of higher education in the specialty 222 "Medicine" of the field of knowledge 22 "Health Care", approved by the Academic Council of ONMedU (Protocol No. 8 of June 29, 2023).

Developers:

Head of the Department, Doctor of Medical Sciences, Professor Pukhlik S.M.

Head of the Department, Candidate of Medical Sciences, Associate Professor Dobronravova I.V.

The work program was approved at the meeting of the Department of Otolaryngology

Protocol No. \_1\_\_ dated 08/30/2023.

## Head of the Department \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Serhiy Pukhlik

Approved by the guarantor of the SRB \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Valeria MARICHEREDA

Approved by the subject-cycle methodical commission for surgical disciplines of ONMedU

Minutes No. \_1\_\_ dated 08/30/2023.

Chairman of the subject-cycle methodical commission on surgical disciplines of ONMedU

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Vasyl Mischenko

Reviewed and approved at the meeting of the department\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Minutes No. \_\_\_ of "\_\_\_" \_\_\_\_\_\_\_\_\_\_\_\_ 20\_\_ р.

Head of the Department \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*(signature) (first name) (last name)*

Reviewed and approved at the meeting of the department\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Minutes No. \_\_\_ of "\_\_\_" \_\_\_\_\_\_\_\_\_\_\_\_ 20\_\_ р.

Head of the Department \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*(signature) (first name) (last name)*

**1. Description of the discipline**:

| **Name of indicators** | **Field of study, specialty, specialization, level of higher education** | **Characteristics of the discipline** |
| --- | --- | --- |
| Total number:  Credits: 3  Hours: 90  Content.  modules: 1 | Field of expertise  22 "Health care"  Specialty.  222 "Medicine"  Level of higher education  second (master's) **degree** | *Full-time form of study*  *Elective discipline* |
| *Year of preparation: 6* |
| *Semesters XI - XI* |
| *Lectures (0 hours)* |
| *Seminar (0 hours)* |
| *Practical (30 hours)* |
| *Laboratory (0 hours)* |
| *Independent work (60 hours)* |
| *including individual assignments (0 hours)* |
| *The form of final control is*  *offset* |

**2. Purpose and objectives of the discipline, competencies, program learning outcomes.**

**Objective**: Mastering of knowledge and formation of elements of professional competencies in the field of modern methods of laryngeal examination and improvement of skills and competencies acquired in the study of previous disciplines.

**Objectives:**

1.Formation of skills: differential diagnosis, the most common disorders of the larynx.

2. Improvement of skills in substantiating clinical diagnosis, drawing up a plan of laboratory and instrumental studies,

3. Mastering the ability to determine the tactics of emergency care, treatment and rehabilitation of the most common diseases of the larynx.

The process of studying the discipline is aimed at forming elements of the following competencies**:**

* **General (GC):**

GC1 - Ability to think abstractly, analyze and synthesize.

GC3 - Ability to apply knowledge in practical situations.

GC4 - Knowledge and understanding of the subject area and understanding of professional activities.

GC5 - Ability to adapt and act in a new situation.

GC6 - Ability to make informed decisions.

GC7 - Ability to work in a team.

GC10 - Ability to use information and communication technologies.

* **Special (SC):**

SC1 - Ability to collect medical information about a patient and analyze clinical data.

SC2 - Ability to determine the necessary list of laboratory and instrumental studies and evaluate their results.

SC3 - Ability to establish a preliminary and clinical diagnosis of the disease.

SC4 - Ability to determine the necessary work and rest regimen in the treatment and prevention of diseases

SC5 - Ability to determine the nature of nutrition in the treatment and prevention of diseases.

SC6 - Ability to determine the principles and nature of treatment and prevention of diseases.

SC7 - Ability to diagnose emergency conditions.

SC8 - Ability to determine tactics and provide emergency medical care.

SC9 - Ability to carry out medical and evacuation measures

SC11 - Ability to solve medical problems in new or unfamiliar environments with incomplete or limited information, taking into account aspects of social and ethical responsibility.

SC17. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of an individual, family, population

SC25. Maintain professional and academic integrity, be responsible for the accuracy of scientific results

SC26. Ability to determine the tactics of management of persons subject to dispensary supervision

SC27.Ability to diagnose and determine the management of patients with extrapulmonary and common forms of tuberculosis, including TB/HIV co-infection with chemoresistant course

**Program learning outcomes (PLOs):**

PLO1 - Have a thorough knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integrating knowledge. To be responsible for professional development, the ability to further professional training with a high level of autonomy.

PLO2 - Understanding and knowledge of basic and clinical biomedical sciences at a level sufficient to solve professional problems in the field of health care.

PLO3 - Specialized conceptual knowledge, including scientific achievements in the field of health care and the basis for research, critical thinking of problems in the field of medicine and related interdisciplinary problems.

PLO4 - To distinguish and identify the leading clinical symptoms and syndromes (according to list 1); using standard methods, using preliminary data from the patient's history, examination data, knowledge about the person, his/her organs and systems, to establish a preliminary clinical diagnosis of the disease (according to list 2).

PLO5 - Collect complaints, anamnesis of life and diseases, assess the patient's psychomotor and physical development, the state of organs and body systems, evaluate information on the diagnosis (according to the list 4) based on the results of laboratory and instrumental studies, taking into account the patient's age.

PLO6 - Establish the final clinical diagnosis by making an informed decision and analyzing the obtained subjective and objective data of clinical, additional examination, conducting differential diagnosis, following the relevant ethical and legal standards, under the supervision of a supervising physician in a health care facility (according to list 2).

PLO7 - To prescribe and analyze additional (mandatory and optional) methods of examination (laboratory, functional and/or instrumental) (according to the list 4), patients with diseases of organs and body systems for differential diagnosis of diseases (according to the list 2).

PLO8 - Identify the main clinical syndrome or symptom that determines the severity of the victim's/injured person's condition (according to List 3) by making an informed decision about the person's condition under any circumstances (in a health care facility, outside it), including in an emergency situation and hostilities, in the field, in conditions of lack of information and limited time.

PLO9 - Determine the nature and principles of treatment of patients (conservative, surgical) with diseases (according to the list 2), taking into account the patient's age, in a health care facility, outside it and at the stages of medical evacuation, including in the field, based on a preliminary clinical diagnosis, following the relevant ethical and legal standards, by making an informed decision according to existing algorithms and standard schemes, if necessary, expand the standard scheme, be able to justify personalized recommendations under the supervision of a physician

PLO10 - Determine the necessary regimen of work, rest and nutrition based on the final clinical diagnosis, adhering to relevant ethical and legal standards, by making an informed decision using existing algorithms and standardized schemes.

PLO14 - Determine the tactics and provide emergency medical care in case of emergencies (according to the list 3) in a limited time according to existing clinical protocols and standards of care.

PLO17 - Perform medical manipulations (according to the list 5) in a medical institution, at home or at work based on a preliminary clinical diagnosis and/or patient's condition indicators by making an informed decision, following the relevant ethical and legal standards.

PLO18 - Determine the state of functioning and limitations of a person's vital activity and the duration of disability with the preparation of relevant documents in a health care facility based on data on the disease and its course, peculiarities of a person's professional activity, etc. Maintain medical records for the patient and the population based on regulatory documents.

PLO21 - Find necessary information in professional literature and databases of other sources, analyze, evaluate and apply this information.

PLO32. Ability to diagnose and determine the tactics of management of patients with extrapulmonary and common forms of tuberculosis, including TB/HIV coinfection with chemoresistant course.

**As a result of studying the discipline, a higher education student must:**

**To know:** Clinical anatomy of the larynx, etiology, clinic of the most common diseases of the larynx, modern methods of diagnosing voice disorders, basics of voice restoration.

**To be able to:**

* Communicate with patients, collect complaints, life history, and medical history.
* Assess the condition of ENT organs in normal and various types of pathology.
* Conduct clinical examination of ENT patients according to standard methods.
* Conduct differential diagnosis and justify clinical diagnosis.
* Determine the nature and principles of patient care based on a preliminary clinical diagnosis, in compliance with relevant ethical and legal standards, by making an informed decision based on existing algorithms and standardized schemes.
* Maintain medical records in case of hearing impairment.

**3. Content of the discipline**

| № | Class topic |
| --- | --- |
|  | Anatomy, physiology of the larynx. |
|  | Voice in human life. Phoniatrics. |
|  | Functional diseases of the larynx. Hypotonic dysphonia and phonasthenia. Psychogenic aphonia. Hypertensive and spastic dysphonia. Mutational dysphonia. |
|  | Occupational diseases of the vocal apparatus. |
|  | Acute laryngitis. |
|  | Chronic laryngitis. |
|  | Specific laryngitis 1 |
|  | Specific laryngitis 2 |
|  | Paresis and paralysis of the larynx. Classification, causes, diagnosis, treatment |
|  | Tumor-like formations of the larynx. |
|  | Benign tumors of the larynx. |
|  | Malignant tumors of the larynx |
|  | Injuries, burns of the larynx. |
|  | Acute and chronic stenosis of the larynx |
|  | Rehabilitation of patients after surgical treatment for laryngeal cancer (after extirpation and resection of the larynx). |

***Credit. It is*** *graded on a two-point scale: the grade* "passed" is given to a higher education student who has completed the curriculum of the discipline, has no academic debt; the level of competence is high (creative); the grade "failed" is given to a higher education student who has not completed the curriculum of the discipline, has academic debt (grade point average below 3.0 and/or absences); the level of competence is low (receptive and productive).

**4. Structure of the discipline**

| **Topics to be covered** | **Number of hours** | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Total** | **including** | | | | |
| **lectures** | **seminars** | **practical** | **laboratory** | **SRS** |
| Topic 1: Anatomy and physiology of the larynx. | 6 | 0 | 0 | 2 | 0 | 4 |
| Topic 2. Voice in human life. Phoniatrics. | 6 | 0 | 0 | 2 | 0 | 4 |
| Topic 3. Functional diseases of the larynx. Hypotonic dysphonia and phonasthenia. Psychogenic aphonia. Hypertensive and spastic dysphonia. Mutational dysphonia. | 6 | 0 | 0 | 2 | 0 | 4 |
| Topic 4. Occupational diseases of the vocal apparatus. | 6 | 0 | 0 | 2 | 0 | 4 |
| Topic 5. Acute laryngitis. | 6 | 0 | 0 | 2 | 0 | 4 |
| Topic 6 Chronic laryngitis. | 6 | 0 | 0 | 2 | 0 | 4 |
| Specific laryngitis 1 | 6 | 0 | 0 | 2 | 0 | 4 |
| Topic 8: Specific laryngitis 2 | 6 | 0 | 0 | 2 | 0 | 4 |
| Topic. 9. Paresis and paralysis of the larynx. Classification, causes, diagnosis, treatment | 6 | 0 | 0 | 2 | 0 | 4 |
| Topic 10. Tumor-like formations of the larynx. | 6 | 0 | 0 | 2 | 0 | 4 |
| Topic 11. Benign tumors of the larynx. | 6 | 0 | 0 | 2 | 0 | 4 |
| Topic 12: Malignant tumors of the larynx | 6 | 0 | 0 | 2 | 0 | 4 |
| Topic 13: Injuries and burns of the larynx. | 6 | 0 | 0 | 2 | 0 | 4 |
| Topic 14: Acute and chronic laryngeal stenosis | 6 | 0 | 0 | 2 | 0 | 4 |
| Topic 15. Rehabilitation of patients after surgical treatment for laryngeal cancer (after extirpation and resection of the larynx). | 6 | 0 | 0 | 2 | 0 | 4 |
| ***Credit*** | 0 | 0 | 0 | 0 | 0 | 0 |
| *Individual tasks* | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total hours** | 6 | 0 | 0 | 30 | 0 | 60 |

**5. Topics of lectures / seminars / practical / laboratory classes**

**5.1. Topics of lecture classes -** lecture classes are not provided.

**5.2. Topics of seminar sessions**

Seminar classes are not provided.

**5.3. Topics of practical classes**

| No. of s.p. | TOPIC | Number of hours |
| --- | --- | --- |
| 1 | Topic 1: Anatomy, physiology of the larynx. | 2 |
| 2 | Topic 2. Voice in human life. Phoniatrics. | 2 |
| 3 | Topic 3. Functional diseases of the larynx. Hypotonic dysphonia and phonasthenia. Psychogenic aphonia. Hypertensive and spastic dysphonia. Mutational dysphonia. | 2 |
| 4 | Topic 4. Occupational diseases of the vocal apparatus. | 2 |
| 5 | Topic 5. Acute laryngitis. | 2 |
| 6 | Topic 6: Chronic laryngitis. | 2 |
| 7 | Topic 7. Specific laryngitis 1 | 2 |
| 8 | Topic 8: Specific laryngitis 2 | 2 |
| 9 | Topic 9: Paresis and paralysis of the larynx. Classification, causes, diagnosis, treatment | 2 |
| 10 | Topic 10. Tumor-like formations of the larynx. | 2 |
| 11 | Topic 11. Benign tumors of the larynx. | 2 |
| 12 | Topic 12: Malignant tumors of the larynx | 2 |
| 13 | Topic 13: Injuries and burns of the larynx. | 2 |
| 14 | Topic 14: Acute and chronic laryngeal stenosis | 2 |
| 15 | Topic 15. Rehabilitation of patients after surgical treatment for laryngeal cancer (after extirpation and resection of the larynx). | 2 |
|  | Credit |  |
|  | Total | 30 |

**6. Independent work of a higher education student**

| **№** | **Name of the topic / types of tasks** | **Number of hours** |
| --- | --- | --- |
|  | Topic 1-15. Preparing for the practical exercises | 4 |
|  | **Together** | **60** |

**7. Teaching methods**

**Practical classes:** conversation, solving clinical situational tasks, practicing patient examination skills, practicing skills, instruction and practicing skills on simulation models, training exercises on differential diagnosis of the most common hearing impairments.

**Independent work:** independent work with the recommended basic and supplementary literature, with electronic information resources, independent mastering of algorithms for communicating with ENT patients.

**8. Forms of control and evaluation methods**

**(including criteria for assessing learning outcomes)**

**Ongoing control:** oral questioning, testing, evaluation of activity in the classroom.

**Final control**: The grade is assessed on a two-point scale: the grade "passed" is given to a higher education student who has completed the curriculum of the discipline, has no academic debt; the level of competence is high (creative); the grade "failed" is given to a higher education student who has not completed the curriculum of the discipline, has academic debt (grade point average below 3.0 and/or absences); the level of competence is low (receptive-productive).

**Assessment of current learning activities in a practical class**:

1. Assessment of theoretical knowledge on the topic of the class:

* Methods: survey, solving a situational clinical problem
* maximum grade - 5, minimum grade - 3, unsatisfactory grade - 2.

The grade for one practical lesson is the arithmetic mean of all components and can only have an integer value (5, 4, 3, 2), which is rounded according to the statistical method.

**Criteria for the current assessment in the practical class**

| **Assessment.** | **Evaluation criteria** |
| --- | --- |
| "5" | The applicant is fluent in the material, takes an active part in the discussion and solution of a situational clinical problem, confidently demonstrates practical skills during the examination of the patient and interpretation of clinical, laboratory and instrumental research data, expresses his/her opinion on the topic of the class, demonstrates clinical thinking. |
| "4" | The applicant has a good command of the material, participates in the discussion and solution of a situational clinical problem, demonstrates practical skills during the examination of the patient and interpretation of clinical, laboratory and instrumental research data with some errors, expresses his/her opinion on the topic of the class, demonstrates clinical thinking. |
| "3" | The applicant has insufficient knowledge of the material, is not confident in discussing and solving a situational clinical problem, demonstrates practical skills in examining a patient and interpreting clinical, laboratory and instrumental research data with significant errors. |
| "2" | The applicant does not know the material, does not participate in the discussion and solution of a situational clinical problem, does not demonstrate practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental research data. |

An applicant is admitted to the test if he or she fulfills the requirements of the curriculum and if he or she has received at least 3.00 points for the current academic activity.

**9. Distribution of points received by higher education students**

The grade for the discipline is 50% of the grade for the current one.

The average grade for a discipline is translated into a national grade and converted into points on a multi-point scale (200-point scale).

The conversion of a traditional grade into a 200-point grade is performed by the University's Information Technology Department using the Contingent program according to the formula:

**GPA (current academic performance in the discipline) x 40**

**Table for converting a traditional grade into a multi-point grade**

| **National grade for the discipline** | **Sum of points for the discipline** |
| --- | --- |
| Excellent ("5") | 185 - 200 |
| Good ("4") | 151 - 184 |
| Satisfactory ("3") | 120 - 150 |
| Unsatisfactory ("2") | Below 120 |

The *ECTS rating scale* assesses the achievements of higher education students in the educational component who study in one course of one specialty, according to the points they receive, by ranking, namely:

**Conversion of traditional grade in the discipline and the sum of points to the ECTS scale**

| **Evaluation on the ECTS scale** | **Statistical indicator** |
| --- | --- |
| А | Top 10% of applicants |
| В | The next 25% of applicants |
| С | The next 30% of applicants |
| D | The next 25% of applicants |
| Е | The next 10% of applicants |

**10. Methodological support**

* Work program of the elective discipline
* Silabus
* Methodological developments for practical classes
* Guidelines for independent work of higher education students
* Multimedia presentations
* Situational clinical tasks

***Educational and methodological literature:***

# Brad A. Stach, [Virginia Ramachandran](https://www.amazon.com/s/ref=dp_byline_sr_book_2?ie=UTF8&field-author=Virginia+Ramachandran&text=Virginia+Ramachandran&sort=relevancerank&search-alias=books). ClinicalAudiology: An Introduction: Plural Publishing, 3rd Edition. 2021. Pp. 1-645.

**11. Questions for preparation for the final control**

1. Clinical anatomy of the larynx. Features in children...
2. Clinical anatomy of laryngeal cartilage.
3. Clinical anatomy of the laryngeal muscles.
4. Clinical anatomy of the laryngeal joints and ligaments.
5. Clinical anatomy of the laryngeal cavity.
6. Physiology of the larynx.
7. Functions of the larynx.
8. Mechanisms of voice formation.
9. Theories of voice formation.
10. The emergence of sounds, their main characteristics.
11. What is phoniatrics.
12. Classification of voice disorders.
13. Methods of laryngeal examination.
14. Causes of voice disorders.
15. Methods of voice research.
16. Functional voice disorders.
17. Athos.
18. Dysphonia is hypotonic.
19. Hypertensive dysphonia.
20. Spastic dysphonia.
21. Mutational dysphonia.
22. Acute laryngitis, types.
23. Chronic laryngitis, classification.
24. Types of focal form of chronic laryngitis.
25. Relating to specific diseases of the larynx.
26. Types of paresis and paralysis of the larynx
27. Tumor-like diseases of the larynx.
28. Benign tumors of the larynx
29. Malignant tumors of the larynx
30. Treatment of benign laryngeal tumors
31. Treatment of malignant tumors of the larynx
32. Stenosis of the larynx.

**12. Recommended reading**

***Main:***

1. Laiko A.A., Zabolotnyi D.I., Havrylenko Y.V., [et al] Acute nonspecific diseases of the larynx.
2. Popovych V.I. Modern standards of treatment of acute inflammatory diseases of ENT organs (Recommendations). - Kyiv, 2019. - 80 p.
3. Babinets LS, Bezditko PA, Pukhlik SM et al. Family medicine: in 3 books: a textbook. Book 3. Special part. Polyprofile of general medical practice. - Kyiv, 2017. - 680 p.

# Zabolotnyi D.I., Mitin Y.V., Bezshapochnyi S.B., Dieva Y.V. Otorhinolaryngology - K.: VSV "Medicine", 2017. - 460 p.

# BradA.Stach, [VirginiaRamachandran](https://www.amazon.com/s/ref=dp_byline_sr_book_2?ie=UTF8&field-author=Virginia+Ramachandran&text=Virginia+Ramachandran&sort=relevancerank&search-alias=books). ClinicalAudiology: An Introduction: PluralPublishing, 3rd Edition. 2021. Pp. 1-645.

# JackKatz. Handbook of Clinical Audiology Seventh, North American Edition. 2014.Pp. 1-992.

# GeoffreyCooling. TheLittleBookofHearingAids. 2020. Pp. 1-256.

***Additional:***

# Shidlovskaya T.A., Kosakovsky A.L. Topical issues of phoniatrics: Study guide. - K.: Shupyk NMAPE, 2007. - 232 p.

# [R.Corbridge](https://www.bookdepository.com/author/Rogan-Corbridge), [N.Steventon](https://www.bookdepository.com/author/Nicholas-Steventon). Oxford Handbook of ENT and Head and Neck Surgery//Paperback, 2020. - 496 p.

# Y. Mitin, Y. Deyeva, Y. Gomza, V. Didkovskyi et al. Otorhinolaryngology// Medicine, 2018. - 264p.

# R.Probst, G.Grevers, H.Iro. Basic Otorhinolaryngology. A Step-by-Step Learning Guide//Thieme, 2017. - 430p.

# [P.W.Flint](https://www.bookdepository.com/author/Paul-W-Flint), [B.H.Haughey](https://www.bookdepository.com/author/Bruce-H-Haughey), [V.J.Lund](https://www.bookdepository.com/author/Valerie-J-Lund), [K.T.Robbins](https://www.bookdepository.com/author/K-Thomas-Robbins), [J.R.Thomas](https://www.bookdepository.com/author/J-Regan-Thomas), [M.M.Lesperance](https://www.bookdepository.com/author/Marci-M-Lesperance), [H.W.Francis](https://www.bookdepository.com/author/Howard-W-Francis). CummingsOtolaryngology: Head and Neck Surgery, 3-Volume Set// Hardback Format, 2020. - 3568 p.

# Z.Mu, [J.Fang](https://www.bookdepository.com/author/Jugao-Fang). PracticalOtorhinolaryngology, HeadandNeckSurgery: Diagnosis and Treatment// Hardback, 2020. - 314 p.

***13.Information resources***

1. http://moz.gov.ua- Ministry of Health of Ukraine
2. www.ama-assn.org - American Medical Association / [AmericanMedicalAssociation](http://www.facebook.com/AmericanMedicalAssociation/)
3. www.who.int - World Health Organization
4. [www.dec.gov.ua/mtd/home/](http://www.dec.gov.ua/mtd/home/) - State Expert Center of the Ministry of Health of Ukraine
5. http://bma.org.uk- British Medical Association
6. www.gmc-uk.org- *General Medical Council* (*GMC*)
7. www.bundesaerztekammer.de - German Medical Association