

**MINISTRY OF HEALTH OF UKRAINE**  
**ODESA NATIONAL MEDICAL UNIVERSITY**  
**Medical, international faculties**  
**Department of OTORHINOLARYNGOLOGY**  
**Syllabus of the academic discipline**  
**"Pediatric Otorhinolaryngology"**

<b>Scope of the academic discipline</b>	Total number of hours per discipline: 90 hours, 3 credits. Semesters: IX – X. 5th year of study.
<b>Days, time, place of educational discipline</b>	According to the schedule of classes. Department of Otorhinolaryngology Base of KIE "ODKH" ODC, 26, str. Akademik Zabolotny, 9th floor. Base of the University Clinic, st. Tinista, 8, basement.
<b>Professors</b>	Serhii Mykhailovych Pukhlik, Head of the Department, PhD, Professor. Yevchev Fedir Dmytrovych, PhD, Professor. Associate professors: Bohdanov Kyrylo Georgiyovych, PhD. Olga Valentinivna Titarenko, PhD. Dedykova Iryna Volodymyrivna PhD, Shchelkunov Anatoly Petrovych, PhD. Assistants: Ph.D. Iryna Kimivna Tagunova, PhD. Inna Eduardivna Chernysheva, PhD. Iryna Volodymyrivna Dobronravova, , PhD. Oleksandr Viktorovych Andreev, PhD. Volodymyr Volodymyrovych Kolesnichenko, PhD Yevcheva Angelina Fedorivna, PhD Bogdanov Viktor Kirilovich.
<b>Contact Information</b>	Help by phone: Olga Valentinivna Titarenko, head of the study 096-531-71-33, (048) 736-22-30 Valentina Sergienko, laboratory technician 098-454-38-80, (048) 736-22-30 E-mail: olga.titarenko@onmedu.edu.ua Consultations: from 2:00 p.m. to 5:00 p.m. every Wednesday, from 9:00 a.m. to 2:00 p.m. every Saturday Online consultations: from 4:00 p.m. to 6:00 p.m. every Wednesday, from 9:00 a.m. to 2:00 p.m. every Saturday. The link to the online consultation is provided to each group during classes separately.

### COMMUNICATION

Communication with students will be conducted in the classroom (face-to-face).

During online education communication is carried out through the Microsoft Teams platform, as well as through e-mail, Telegram, Viber messengers (through the groups they have created for each group, separately through the head of the group).

### ABSTRACT OF THE EDUCATIONAL DISCIPLINE

*The subject of the discipline* is clinical anatomy, physiology, research methods of the ENT organs, etiology, pathogenesis, diagnosis and treatment of the most common diseases of the ENT organs in children.

*Prerequisites and post-requisites* of the discipline (place of the discipline in the educational program):

*Prerequisites:* Ukrainian language (by professional direction), foreign language (by professional direction), Latin language and medical terminology, medical biology, medical and biological physics, biological and bioorganic chemistry, human anatomy, histology, cytology and embryology, physiology, microbiology, virology and immunology, life safety; basics of bioethics and biosafety, pathomorphology, pathophysiology, pharmacology, propaedeutics of pediatrics, medical psychology, ophthalmology, neurology, psychiatry, narcology, dermatology, venereology.

*Postrequisites:* pediatrics, internal medicine, surgery, obstetrics and gynecology, infectious diseases, epidemiology and principles of evidence-based medicine, oncology and radiation medicine, traumatology and orthopedics, phthysiology, anesthesiology and intensive care, emergency and urgent medical care, hygiene and ecology, palliative and hospice medicine, general practice (family medicine).

The goal of the discipline: acquisition by the student of additional knowledge and mastery of professional competences and skills of observation and management of ENT patients; communication skills, taking into account the characteristics of a family doctor's communication with a healthy and sick person.

*Tasks of the discipline:*

1. Formation of skills and communication skills with an otorhinolaryngological patient.
2. Formation of skills and communication skills with the patient in the most common ENT diseases (respiratory system, ear diseases, ENT oncological patients).
3. Improving the skills of substantiating clinical diagnosis, differential diagnosis, drawing up a plan for laboratory and instrumental research in the most common ENT diseases (respiratory system, ear diseases, allergic lesions of ENT organs).
4. Mastering the ability to determine the tactics of emergency care, management, treatment and prevention of the most common ENT diseases (respiratory system, ear diseases, ENT cancer patients).

*Expected results:*

*As a result of studying the academic discipline, the applicant must:*

*Know:* modern concepts of domestic and foreign theoretical and practical otorhinolaryngology; classification, clinical manifestations, consequences of bleeding from ENT organs, methods of temporary and final stopping of bleeding; tactics for laryngeal stenoses, clinical manifestations of various stages, their diagnosis, measures of conservative and surgical treatment; general issues of injuries of ENT organs; clinic, diagnosis and treatment of purulent-inflammatory diseases of the ENT organs; the method of examination of the patient, the peculiarities of the examination of the patient with ENT pathology; peculiarities of the structure of the medical chart of an inpatient.

*Be able to:* collect anamnesis and objective examination of the patient's ENT; diagnose and provide first aid for various traumatic injuries of the ENT organs; choose the tactics of postoperative ENT management of the patient depending on the surgical intervention; diagnose various inflammatory and non-inflammatory processes of ENT organs, carry out differential diagnosis between them; choose appropriate conservative and surgical tactics for various stages of development of inflammation of the ENT organs; draw up an inpatient card for a patient with ENT pathology.

## **DESCRIPTION OF THE EDUCATIONAL DISCIPLINE**

*Forms and methods of education*

The discipline will be taught in the form of lectures (6 hours), practical classes (38 hours), organization of students' independent work (46 hours).

Educational methods: conversation, solving clinical situational problems, patient examination, manipulations according to list 5, instruction and practice of skills on simulation dummies, training exercises on differential diagnosis of the most common ENT diseases, standardized hybrid ENT patient.

### **Content of the academic discipline**

*Theme 1. Clinical anatomy, physiology and research methods of the ear.* Mastering students with practical skills: using a frontal reflector, otoscopy, investigation of the patency of the auditory tube, anterior and posterior rhinoscopy, oropharyngoscopy, hypopharyngoscopy, laryngoscopy. Capture students by practical skills: using a frontal reflector, lead through of otoscopy, research of communicating of otosalpinx. Clinical anatomy of auricle, external acoustic duct. Structure of ear-drum. System of cavities of middle ear. Topography of facial nerve. Types of structure of processus mastoideus. A value of age-old features of external and middle ear is in pathology of child's age. Blood supply and innervations of external and middle ear. A transmission, transformation role of middle ear is in the mechanism of sound conduction. Structure of cochlea and its receptor vehicle. Bone sound conduction, its types. Theories of sound conduction and sound perceiving. Audiometries. Objective methods of research of ear.

Impedance audiometry, registration of the auditory caused potentials, otoacoustic emission. Interpretation of basic types of threshold audiogram.

**Theme 2. Clinical anatomy, physiology and research methods of the nose, paranasal sinuses, pharynx, larynx, trachea, esophagus.**

Structure of external nose. Cavity of nose, structure of his walls. Functional departments of cavity of nose. Blood supply and innervations of the nasal system. Topographic relations of paranasal sinuses and surrounding anatomic educations. Features of structure of the nasal system are in child's age. Methods of nasoscopy and paranasal sinuses. Anatomic formations of nasopharynx, oropharynx, hypopharynx. Structure and functions of oesophageal ring. Topography of larynx. Cartilages, joints and copulas of larynx. Blood supply of larynx. Structure of trachea. Departments of trachea and its copulas. Structure of bronchial tubes. Blood supply and innervations of the tracheobronchial system. Structure of gullet, Blood supply, innervations. Parts of gullet and their topography. Anatomio-physiologic esophagostenosis.

**Theme 3. Disease of the external ear, congenital malformations.** External otitis (furuncle, inflammation of external acoustic duct is widespread), otomycosis, perichondritis, eczema, wax. Etiology, pathology, clinical symptoms, methods of treatment of diseases of auricle. Methods of delete of wax and extraneous bodies: by a hook, washing of external acoustic duct. Imposition of bandage on an ear and hot compress.

**Theme 4. Acute and chronic purulent otitis media. Otitis media, mastoiditis.** Ways of penetration of infection are in a middle ear. Stages of sharp middle otitis, clinic, diagnostics. Patients have an estimation of information of otoscopy with sharp inflammation of middle ear, X-ray of temporal bones after Shyuller, KT and MRY of ear. Base of diagnosis, choice of rational medical tactic in dependence on the stage of disease. A testimony is to the paracentesis. Technique of paracentesis. Features of motion of middle otitis at infectious diseases and in child's age. Consequences of disease. Etiology, pathogenic, classification, clinic, to the otitis media. Differential diagnosis of sharp middle otitis, to the otitis media with an external otitis. Principles of treatment (conservative and surgical) in dependence on the stage to the otitis media.

**Theme 5. Chronic purulent otitis media. Labyrinthitis. Principles of conservative and surgical treatment in children.** A role of diseases of Upper respiratory tracts, immunological state of organism in genesis of chronic middle purulent otitis. Obligatory signs, mesotympanitis and epitympanitis, cholesteatoma, differential diagnostics. Basic principles of conservative and surgical treatment of mesotympanitis and epitympanitis. Testimony to the operation on a processus mastoideus, its stages. Tympanoplasty. Stages and types (for Vulshteyn). Labyrinthitis. Ways of penetration of infection are to the internal ear. Clinic form (limited, diffuse, serosal, purulent, necrotizing), diagnostics, treatment.

**Theme 6. Atypical forms of mastoiditis.** Ways of penetration of infection are in a processus mastoideus. Factors which influence on motion sharp otitis media. Varieties of otitis media are in dependence on motion (latent, instantaneous) and localization of festering (apex-neck forms: Becol'da, Mure, Orlean, Chitelli; petrositis). Features of diagnostics and clinic forms to the otitis media. Principles of treatment (conservative and surgical) in dependence on the stage to the otitis media. Prophylaxis.

**Theme 7. Nonpurulent diseases of ear.** Acute and chronic catarrh of middle ear, an exudate middle otitis is reasons, value of allergy and disfunction of otoscopy in genesis of disease. Otoscopies, researches of auditory function, are given. Methods of conservative and surgical treatment: auripuncture, by-passing, laser draining of drum cavity. Sensory neural deafness: etiologic classification, pathogeny, complex diagnostics, modern methods of conservative treatment. Prophylaxis

of diseases of auditory nerve. Otosclerosis: changes in a temporal bone, clinical symptoms. Principles of treatment. Menier diseases, pathogeny, conservative therapy, testimony, is to surgical treatment. Operations are on the nerves of drum cavity, draining of endolymphatic sack, labyrinthectomy.

**Theme 8. Acute and chronic diseases of the nasal cavity and paranasal sinuses. Acute and chronic diseases of nasal cavity.** Deformation of external nose and nasal partition. Sycosis, eczema, furuncle and carbuncle of nose, complications are possible. Principles of treatment. Acute and chronic rhinitis. A role of infection is in the origin of sharp rhinitis. Clinical stages. Principles of treatment. Differential diagnostics of acute rhinitis. Basic forms of chronic rhinitis (catarrhal, hypertrophic, atrophy, vasculomotor), clinic, diagnostics, treatment. Ozena, etiology, pathogeny, clinic, methods of treatment. Rhinallergosis. Seasonal rhinallergosis. Whole-year rhinallergosis. Allergodiagnostic. Modern methods of treatment of diseases of nose. Acute and chronic paranasal sinuses: path anatomical changes, classification, general and local symptoms. Additional methods of research: X-ray, KT, MRT, thermography et al. Treatment – conservative and surgical. Children age-old features of development of paranasal sinuses, value of them, in pathology of ENT-organs. Connection of genyantrum is with development of the teeth system. Testimony to the operations on paranasal sinuses for children.

**Theme 9. Rhinogenic and otogenic intracranial and orbital complications.** Rhinogenic orbital complications. The reactive edema of cellulose of orbit and eyelids, subperiosteal abscess, phlegmon of orbit. Rhinogenic intracranial complications. Ways of penetration of infection are in the cavity of skull. Extradural and subdural abscesses, meningitis, thrombosis cavernous and overhead longitudinal sinus. Clinic of complications, principles of treatment.

**Theme 10. Acute and chronic tonsillopharyngitis and their complications.** Pharyngitis, clinic, treatment. Acute primary tonsillitis: catarrhal, follicle, lacunar, ulcerous tonsillitis. Differential diagnostics. General

principles of inspection, treatment and prophylaxis. Complication of quinsies. Paratonsillitis, abscess, parapharyngeal abscess, the phlegmon of neck, mediastinitis, sepsis. Abscess tonsillectomy. Retropharyngeal abscess. Chronic pharyngitis and its forms. A choice of method of treatment is in dependence on the form of disease. Leptotrichosis. Chronic tonsillitis: etiology, pathogeny, diagnostics. Classification of chronic tonsillitis. Indications and types of treatment. Hypertrophy pharyngeal, palatal and tongue tonsils, adenoiditis. Principles of treatment (conservative and surgical).

**Theme 11. Acute secondary tonsillitis.** Acute second tonsillitis: defeat of tonsils at infectious diseases (diphtheria, scarlet fever, rabbit-fever, typhoid) and at the diseases of the system of blood (infectious mononucleosis, agranulocytosis et al.). Characteristic changes of formula of blood. Methods of treatment.

**Theme 12. Acute and chronic inflammatory diseases of the larynx. Stenosis of the larynx. Differential diagnosis between true and false croup.** Acute catarrhal laryngitis. Laryngeal quinsy, phlegmonous laryngitis. Childrens acute laryngotracheitis: etiology, pathogens, clinical classification, clinic, principles of treatment, nasotracheal prolonged intubation. Diphtheria of larynx. Chronic laryngitis: catarrhal, hypertrophic, atrophy. Etiologic factors of hypertrophic laryngitis, variants of disease, clinical displays, possible complication. Pre-tumour illnesses of larynx. Principles of conservative and surgical treatment. Professional diseases of larynx. Etiology, classification, clinic of stenosis of larynx. Physiopathology mechanisms of indemnification and decompensation at insufficiency of breathing. The first aid and treatment of stenosis of larynx is in dependence on the stage of process. Completing of set of tools is for tracheotomy. Technique of execution of tracheotomy, conicotomy, possible complication.

**Theme 13. Tumors of the ENT organs in children.** Of high quality tumors of nose and paranasal sinuses. Benign tumors of pharynx (youth angiofibroma of basis of skull). Benign tumors of larynx. Glomus tumour of ENT-organs. Acoustic neurinoma. Principles of treatment.

**Theme 14. Nose injuries, nosebleeds. Stopping methods nosebleeds** Diagnostics of traumas of nose and paranasal sinuses. Classification of traumas of nose. The first aid is at traumas. Local and general reasons of epistaxis. Local and general facilities of stopping of epistaxis. Technique of anterior and back tamponade of nose. Methods of stop of bleeding from the area of Kiselbakh (cauterization of vessels of mucus shell, surgical stop of epistaxis). Bleeding from the ethmoidal labyrinth, methods of stopping.

**Theme 15. Foreign bodies of ENT organs. Esophageal burns.** Varieties of foreign bodies of ear, deleting. A mechanism of aspiration of foreign bodies is in respiratory tracts. Features of clinic at the foreign bodies of larynx and trachea, bronchial tubes, methods of their delete. Roentgenologic inspection of patient. Phenomenon of Goltsnekht-Yakobson. Methods of diagnostics and delete. Symptoms and complication of foreign bodies of pharynx and esophagus. Clinic. The stages of inspection sick are with suspicion on the extraneous body of pharynx and esophagus. Roentgenologic methods of research. Treatment. Complication of foreign bodies of pharynx and esophagus (abscess of wall of esophagus, bleeding, perforation of wall of esophagus, phlegmon of neck, mediastinitis).

### Recommended literature

#### Basic:

1. Y. Mitin, Y. Deyeva, Y. Gomza, V. Didkovskiy etc. Otorhinolaryngology// Medicine, 2018. – 264p.
2. A. Al-Qahtani, H. Haidar, A. Larem. Textbook of Clinical Otolaryngology// Hardback, 2020. - 1155 p.
3. P.W. Flint, B.H. Haughey, V.J. Lund, K.T. Robbins, J.R. Thomas, M.M. Lesperance, H.W. Francis. Cummings Otolaryngology: Head and Neck Surgery, 3-Volume Set// Format Hardback, 2020. - 3568

#### Additional:

4. J. A. Seikel, D.G. Drumright, D.J. Hudock. Anatomy and Physiology for Speech, Language, and Hearing //Format Hardback, 2019. - 700 p.
5. K.S. Helfer, E.L. Bartlett, A.N. Popper, R.R. Fay. Aging and Hearing: Causes and Consequences// Hardback. 2020. – 326p.
6. Z. Mu, J. Fang. Practical Otorhinolaryngology, Head and Neck Surgery: Diagnosis and Treatment// Hardback, 2020. - 314 p.
7. H.H. Ramadan, F.M. Baroodi. Pediatric Rhinosinusitis// Paperback, 2020. - 300 p.

### EVALUATION

**Ongoing control:** oral survey, testing, assessment of class activity.

**Criteria of ongoing assessment at the practical class**

Score	Assessment criterion
Excellent	The student is fluent in the material, takes an active part in discussing and

«5»	solving a situational clinical problem, confidently demonstrates practical skills during the examination of a patient and the interpretation of clinical, laboratory and instrumental research data, expresses his opinion on the topic of the class, demonstrates clinical thinking.
Good «4»	The student 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 a patient and the interpretation of clinical, laboratory and instrumental research data with some errors, expresses his opinion on the topic of the class, demonstrates clinical thinking.
Satisfactory «3»	The student does not have sufficient knowledge of the material, is unsure of participating in the discussion and solution of the situational clinical problem, demonstrates practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental research data with significant errors.
Unsatisfactory «2»	The student does not possess the material, does not participate in the discussion and solution of the situational clinical problem, does not demonstrate practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental research data.

The student is admitted to the Credit on the condition that the requirements of the educational program are met and if he received at least 3.00 points for the current educational activity .

### **INDEPENDENT WORK OF STUDENTS**

Independent work involves preparation for each practical lesson.

#### **Educational discipline policy**

*Deadlines and rescheduling policy:*

- absences of classes for non-respectable reasons are worked out according to the schedule of the teacher on duty.
- absences due to valid reasons are processed according to an individual schedule with the permission of the dean's office.

*Academic integrity policy:*

applicants must observe academic integrity, namely:

- independent performance of all types of work, tasks, forms of control provided for by the work program of this educational discipline;
- references to sources of information in the case of using ideas, developments, statements, information;
- compliance with the legislation on copyright and related rights;
- provision of reliable information about the results of one's own educational (scientific) activity, used research methods and sources of information.

unacceptable in educational activities for participants of the educational process are:

- using family or official ties to obtain a positive or higher grade during any form of control of learning outcomes or academic performance;
- use of prohibited auxiliary materials or technical means (cheat sheets, notes, micro-earphones, telephones, smartphones, tablets, etc.) during control measures;
- passing procedures for control of training results by fake persons.

for violation of academic integrity, students may be held to the following academic responsibility:

- a decrease in the results of assessment of control work, assessment in class, credit, etc.;
- retaking the assessment (control work, credit, etc.);
- appointment of additional control measures (additional individual tasks, control works, tests, etc.);
- conducting an additional inspection of other works authored by the violator.

*Attendance and tardiness policy:*

Uniform: a medical gown that completely covers the outer clothing, or medical pajamas, a cap, a mask, and a change of shoes.

Equipment: notebook, pen,.

Health: applicants suffering from acute infectious diseases, including respiratory diseases, are not allowed to attend classes.

Student who is late for class can attend it, but if the teacher has put "nb" in the journal, he must work it out in the general order.

*Use of mobile devices:*

mobile devices may be used by students with the permission of the teacher if they are needed for the task.

*Behavior in the audience:*

The behavior of applicants and teachers in the classrooms must be working and calm, strictly comply with the rules established by the regulations on academic integrity and ethics of academic relations at Odessa national medical university, in accordance with the code of academic ethics and university community relations of Odessa national medical university, regulations on prevention and detection of academic plagiarism in the research and educational work of higher education applicants, scientists and teachers of Odessa national medical university.