

MINISTRY OF HEALTH OF UKRAINE

ODESA NATIONAL MEDICAL UNIVERSITY

Department of OTORHINOLARYNGOLOGY

CONFIRMED by

Acting vice-rector for scientific and pedagogical work

Eduard BURBACHKIVSKIY

September 1<sup>st</sup>, 2023

**WORKING PROGRAM IN THE DISCIPLINE  
«PEDIATRIC OTORHINOLARYNGOLOGY»**

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

**Field of knowledge:** 22 «Health care»

**Specialty:** 222 «Medicine»

**Educational and professional program:** Medicine


2023

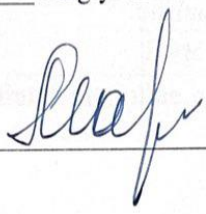
The working program is compiled on the basis of the educational and professional program "Medicine" for the training of specialists of the second (master's) level of higher education in the specialty 222 "Medicine" of the field of knowledge 22 "Health care", approved by the Academic Council of ONMedU (minutes No. 8 dated 29/06/2023).

Authors:

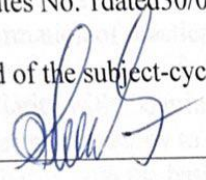
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The working program is approved at the meeting of the Department of Otorhinolaryngology Minutes No. 1 dated 30/08/2023.


Head of the department  SergiyPukhlik

Approved by the guarantor of the educational and professional program  Valeriia MARICHEREDA

Approved by the subject-cycle methodological commission for surgery of ONMedU Minutes No. 1 dated 30/08/2023.

Head of the subject-cycle methodological commission for surgery of ONMedU  VasilMishchenko

Revised and approved at the meeting of the Department of Otorhinolaryngology Minutes No. 1 dated 28/08/2024

Head of the department  SergiyPukhlik

Revised and approved at the meeting of the Department of Otorhinolaryngology Minutes No. \_\_ dated \_\_/\_\_/20\_\_.

Head of the department \_\_\_\_\_ SergiyPukhlik

### 1. Description of the discipline:

Name of indicators	Field of knowledge, specialty, specialization, level of higher education	Characteristics of the discipline
Total number:	Field of knowledge 22 «Health care»	<i>Full-time (day) education</i> <i>Elective discipline</i>
Credits of ECTS: 3	Specialty 222 «Medicine»	<i>Course: 5</i>
Hours: 90		<i>Semester: IX – X</i> <i>Lectures (0 hours)</i>
Content modules: 1	Level of higher education second (master's degree)	<i>Seminars(30 hours)</i>
		<i>Practical classes( hours)</i>
		<i>Laboratories(0 hours)</i>
		<i>Independent work (60 hours)</i>
		<i>including individual tasks (0hours)</i>
		<i>Form of final control – Credit</i>

### 2. The purpose and tasks of the educational discipline, competencies, program learning outcomes

#### The purpose is

- mastering diagnostic methods;
- treatment and the most common ENT diseases of children of early and younger childhood age;
- mastering systematic knowledge on the organization of ENT care;
- the formation of practical skills in the use of ENT instruments;
- mastering the skills of examining ENT patients of children of early and younger childhood age;
- familiarity with the principles of local and general anesthesia;
- mastering the ability to diagnose traumatic injuries of ENT organs and provide them with first aid
- familiarity with the basics of ENT oncology;
  - the formation of practical skills for examining the patient's ENT and the registration of its results in the inpatient medical record;
  - formation of the ability to apply the knowledge, skills, abilities and understanding of otorhinolaryngology to solve typical tasks of the doctor's health care at the relevant position, the scope of which is provided for by certain lists of syndromes and symptoms of diseases, physiological conditions and diseases requiring special patient management tactics conditions, laboratory and instrumental studies, medical manipulations.

#### The tasks of the discipline are the following:

- mastering the main activities necessary for organizing work in the ENT department and ensuring prevention of the occurrence and spread of nosocomial infection;
- acquisition of practical skills for examining ENT organs;
- acquisition of practical skills in providing first aid in such conditions as bleeding from the ENT organs, closed soft tissue damage, fracture of the facial bones, laryngeal stenosis
- acquisition of practical skills for endoscopic examination of ENT organs;
- mastering knowledge of the basics of local and general anesthesia, acquire the ability to choose the method of anesthesia depending on the condition of the patient and the available ENT pathology;
- acquisition of practical skills for diagnosis and differential diagnosis for various ENT infectious processes, obtaining skills for choosing a treatment program and means of prevention for ENT infections;
- acquisition of skills and abilities for examination of the patient's ENT and the registration of the results in the relevant medical documentation;
- the formation of moral, ethical and deontological qualities in professional communication with the patient.

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

**Integral competence** (level 7) according to the requirements of the NRC. The ability to solve typical and complex problems, including those of a research and innovation nature in the field of medicine. Ability to continue learning with a high degree of autonomy.

**General competences** according to the requirements of the NRK

GC1. Ability to abstract thinking, analysis and synthesis

GC3. Ability to apply knowledge in practical situations

GC4. Knowledge and understanding of the subject area and understanding of professional activity

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 (professional, subject) competences**

SC1. Ability to collect medical information about the 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. The ability to determine the necessary regime of work and rest in the treatment and prevention of diseases

SC5. The 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

help

SC9. Ability to carry out medical evacuation measures

SC11. 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, including early intervention systems

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

SC25. Adherence to professional and academic integrity, to be responsible for the reliability of the obtained scientific results

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

SC27. The ability to diagnose and determine the management tactics of patients with extrapulmonary and widespread forms of tuberculosis, including co-infection of TB/HIV with a chemoresistant course

**Program learning outcomes (PLO):**

PLO1. Have thorough 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.

PLO2. Understanding and knowledge of fundamental and clinical biomedical sciences, at a level sufficient for solving professional tasks in the field of health care.

PLO3. Specialized conceptual knowledge that 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 problems, including the system of early intervention.

PLO4. Identify and identify leading clinical symptoms and syndromes (according to list 1); 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, establish a preliminary clinical diagnosis of the disease (according to list 2).

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

PLO6. To establish the final clinical diagnosis by making a reasoned decision and analyzing the received subjective and objective data of clinical, additional examination, carrying out differential diagnosis, observing the relevant ethical and legal norms, under the control of the head physician in the conditions of the health care institution (according to the list 2).

PLO7. Assign and analyze additional (mandatory and optional) examination methods (laboratory,

functional and/or instrumental) (according to list 4), patients with diseases of organs and body systems for differential diagnosis of diseases (according to list 2).

PLO8. Determine the main clinical syndrome or symptom that determines the severity of the condition of the victim/injured person (according to list 3) by making a reasoned decision about 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.

PLO9. Determine the nature and principles of treatment (conservative, operative) of patients with diseases (according to list 2), 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.

PLO10. Determine the necessary mode of work, rest and nutrition 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.

PLO14. Determine tactics and provide emergency medical care in emergency situations (according to list 3) in limited time conditions according to existing clinical protocols and standards of treatment.

PLO17. Perform medical manipulations (according to list 5) in the conditions of a medical institution, at home or at work based on a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, observing the relevant ethical and legal norms.

PLO18. 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.

PLO21. Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information.

PLO32. The ability to diagnose and determine the management tactics of patients with extrapulmonary and common forms of tuberculosis, including co-infection of TB/HIV with a chemoresistant course.

#### **As a result of studying the discipline, the student has to Know:**

- modern concepts of national and foreign theoretical and practical pediatric otorhinolaryngology;
- The basic principles of the organization of ENT care to the population of Ukraine;
- The basics of organizing a rational regimen and treatment for the patient's ENT of children of early and younger childhood age;
- common elements of care for ENT patients;
- theoretical aspects of ENT instrumentation and methods of its use;
- theoretical aspects of preventing the occurrence and spread of nosocomial ENT infection;
- classification, clinical manifestations, consequences of bleeding from the ENT organs, methods of temporary and final stop of bleeding;
- basics of anesthesia in otorhinolaryngology;
- tactics for laryngeal stenosis, clinical manifestations of various stages, their diagnosis, measures for conservative and surgical treatment;
- general issues of injuries of ENT organs
- general issues of ENT oncology;
- clinic, diagnosis and treatment of purulent-inflammatory diseases of ENT organs;
- features of the structure of the inpatient medical record.

#### **Be able:**

- organize appropriate sanitary and epidemic conditions for various premises of the ENT department;
- to collect anamnesis and objective examination of the patient's ENT;
- choose an adequate anesthesia method for this or that intervention
- diagnose various traumatic injuries of ENT organs;

- provide first aid for various traumatic injuries of ENT organs;
- choose the tactics of postoperative management of the patient's ENT, depending on the surgical intervention
- to diagnose various inflammatory and non-inflammatory processes of ENT organs, to conduct differential diagnostics between them;
- choose the appropriate surgical tactics for different stages of inflammation of ENT organs;
- draw up a program of conservative treatment of various inflammatory processes of ENT organs;
  - issue an inpatient card for a patient with ENT pathology of children of early and younger childhood age
- Comply with the requirements of ethics, bioethics and deontology in their professional activities.

### **3. The content of the educational discipline**

#### **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 its 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. Anatomic-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 processum mastoideus, its stages. Tympanoplasty. Stages and types (for Vulshetyn). 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 processum mastoideus. Factors which influence on motions sharp antritis. Varieties of otitis are independence 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. Principles of treatment (conservative and surgical) independence on the stage of the otitis. Prophylaxis.

**Theme 7. Nonpurulent diseases of ear.** Acute and chronic catarrh of middle ear, an exudate middle otitis is reasons, value of allergy and dysfunction of otosalpinx 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 quinsies. 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. Glomustumourof 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).

#### 4. The structure of the educational discipline Reference structure to the module Pediatric Otorhinolaryngology:

Theme	Altogether	Lectures	Practical lessons	ISW
1 Clinical anatomy, physiology and research methods of the ear.	6	-	2	4
2 Clinical anatomy, physiology and research methods of the nose, paranasal sinuses, pharynx, larynx, trachea, esophagus.	6	-	2	4
3. Disease of the external ear, congenital malformations	6		2	4
4. Acute and chronic purulent otitis media. Otoanthritis, mastoiditis.	6	-	2	4
5. Chronic purulent otitis media. Labyrinthitis. Principles of conservative and surgical treatment in children.	6		2	4
6. Atypical forms of mastoiditis	6		2	4
7. Non-purulent diseases of the ear: secretory otitis media, sensorineural deafness. Cochlear implantation.	6		2	4



8. Acute and chronic diseases of the nasal cavity and paranasal sinuses.	6		2	4
9. Rhinogenic and otogenic intracranial and orbital complications.	6	-	2	4
10. Acute and chronic tonsillopharyngitis and their complications.	6		2	4
11. Acute secondary tonsillitis	6		2	4
12. Acute and chronic inflammatory diseases of the larynx. Stenosis of the larynx. Differential diagnosis between true and false croup.	6	-	2	4
13. Tumors of the ENT organs in children.	6		2	4
14. Nose injuries, nosebleeds. Stopping methods nosebleeds	6		2	4
15. Foreign bodies of ENT organs. Esophageal burns.	6		2	4
Credit	0	0	0	0
<b>Altogether-90</b>	<b>90</b>	<b>0</b>	<b>30</b>	<b>60</b>

### 5. Themes of lectures / seminars / practical classes/ laboratories

**5.1. Themes of lectures.** Lectures are not provided.

**5.2. Themes of .** Seminars are not provided.

#### 5.3. Themes of practical classes

No	THEME	Hours
1.	Clinical anatomy, physiology and research methods of the ear.	2
2.	Clinical anatomy, physiology and research methods of the nose, paranasal sinuses, pharynx, larynx, trachea, esophagus.	2
3	Disease of the external ear, congenital malformations	2
4	Acute and chronic purulent otitis media. Otoanthritis, mastoiditis.	2
5	Chronic purulent otitis media. Labyrinthitis. Principles of conservative and surgical treatment in children.	2
6	Atypical forms of mastoiditis	2
7	Non-purulent diseases of the ear: secretory otitis media, sensorineural deafness. Cochlear implantation.	2
8	Acute and chronic diseases of the nasal cavity and paranasal sinuses.	2
9	Rhinogenic and otogenic intracranial and orbital complications.	2
10	Acute and chronic tonsillopharyngitis and their complications.	2
11	Acute secondary tonsillitis	2
12	Acute and chronic inflammatory diseases of the larynx. Stenosis of the larynx. Differential diagnosis between true and false croup.	2
13	Tumors of the ENT organs in children.	2
14	Nose injuries, nosebleeds. Stopping methods nosebleeds	2
15	Foreign bodies of ENT organs. Esophageal burns.	2
	<b>Total hours</b>	<b>30</b>

#### 5.4. Themes of laboratories

Laboratories are not provided.

### 6. Independent work of the student

No.	Theme	Hours
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1.	Theme 1. Preparation for practical classes	4
2.	Theme 2. Preparation for practical classes	4
3.	Theme 3. Preparation for practical classes	4
4.	Theme 4. Preparation for practical classes	4
5.	Theme 5. Preparation for practical classes	4
6.	Theme 6. Preparation for practical classes	4
7.	Theme 7. Preparation for practical classes	4
8.	Theme 8. Preparation for practical classes	4
9.	Theme 9. Preparation for practical classes	4
10.	Theme 10. Preparation for practical classes	4
11.	Theme 11. Preparation for practical classes	4
12.	Theme 12. Preparation for practical classes	4
13.	Theme 13. Preparation for practical classes	4
14.	Theme 14. Preparation for practical classes	4
15.	Theme 15. Preparation for practical classes	4
	<b>Total</b>	<b>60</b>

### 8. Forms of control and assessment methods

(including criteria for evaluating learning outcomes)

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

**Final control:** Credit. It is evaluated on a two-point scale: the grade "credited" is given to a higher education applicant 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 student of higher education who has not completed the curriculum of the discipline, has academic debt (average grade below 3.0 and/or missed classes); the level of competence is low (receptive-productive).

#### **Evaluation of the current educational activity in a practical session:**

1. Evaluation of theoretical knowledge on the subject of the lesson:

- methods: survey, solving a situational clinical problem
- maximum score – 5, minimum score – 3, unsatisfactory score – 2.

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

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

<b>Score</b>	<b>Assessment criterion</b>
Excellent «5»	The student is fluent in the material, takes an active part in discussing and 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 differentiated assessment 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.

### 9. Distribution of points, obtained by the student

The grade for the discipline consists of the grade for the current academic performance.

The average grade in the discipline is converted to the national grade and converted to points on a multi-point scale (200-point scale).

Conversion of traditional assessment into 200-point is carried out by the information and technical department of ONMedU by the special program by the formula:

$$\text{Average score (current academic performance)} \times 40.$$

#### Conversion table of traditional to multi-point

National score for the discipline	The sum of scores for the discipline
Excellent («5»)	185 – 200
Good («4»)	151 – 184
Satisfactory («3»)	120 – 150
Unsatisfactory («2»)	Less than 120

According to the ECTS rating scale, students' achievements in educational discipline, who study on the same course of one specialty, according to their scores, are assessed by means of rank, namely:

#### Conversion of the traditional evaluation and ECTS scores

Score on the ECTS scale	Statistical indicator
A	The best 10% students
B	Next 25% students
C	Next 30% students
D	Next 25% students
E	Next 10% students

### 10. Methodological support

- Working program in the discipline
- Syllabus
- Methodological recommendations for the practical classes in the discipline
- Methodological recommendations for the individual work of students
- Multimedia presentations
- Situational tasks (including calculation)
- Tests on the theme

#### *Educational and methodical literature:*

Y.Mitin, Y.Deyeva, Y.Gomza, V. Didkovskiy etc. Otorhinolaryngology// Medicine, 2018. – 264p.

### 11. Questions for the final control

1. Clinical anatomy of ear-drum. The children location and structure of ear-drum.
2. Clinical anatomy of tympani cavity. Features of its structure are in child's age.
3. Clinical anatomy, physiology of otosalpinx. Features of its structure are in child's age.
4. Clinical anatomy of internal ear. Structure of spiral organ. Adequate irritant of auditory analisator.
5. Mechanism of sound conduction (transmission, transformation of sound). Theories of sound perceiving.
6. Methods of research of analyser. Features of its structure are in child's age.
7. Clinical anatomy of the semicircular canals and ampular receptors of internal ear. Vestibular nucleus and their connections.
8. Structure of otolith analyser. Adequate irritants. Methods of research of vestibular analyser
9. Clinical anatomy of cavity of nose. Features of its structure are in child's age.
10. Blood supply and innervations of cavity of nose.

11. Clinical value, physiology of cavity of nose and paranasal sinuses.. Clinical anatomy of maxillary and ethmoidal sinuses. Features of its structure are in child's age. Clinical anatomy of frontal, sphenoidal sinus
12. Clinical anatomy of pharynx, its departments.
13. Anatomy , physiology of lymphoid pharyngeal ring, structure of palatal tonsils. Age-old changes of lymphoid pharyngeal ring.
14. Clinical anatomy of cavity of larynx, innervation of larynx, its function.
15. Congenital anomalies of the ear.
16. Haematoma and perichondritis of auricle.
17. Wax, clinic, methods of delete.
18. External otitis: forms, etiology, clinic, treatment.
19. Acute middle otitis. Etiology, pathogenesis, clinic.
20. Treatment of acute middle otitis.
21. Acute mastoiditis: determination of concept, stage, clinic, diagnostics, treatment. Antromastoidotomy.
22. Atypical forms to the mastoiditis.
23. Differential diagnostics of epitympanitis and mesotympanitis.
24. Conservative treatment of chronic middle otitis.
25. Types of operations at chronic middle otitis.
26. Labyrinthitis: forms, clinic, treatment.
27. Ways and stages of spreading of infection from an ear in the cavity of skull.
28. Otogenic abscesses of brain: clinic, treatment.
29. A sinus thrombosis and otogenic sepsis: clinic, treatment.
30. Otogenic meningitis: clinic and treatment.
31. Sensorineural deafness: etiology, clinic, treatment.
32. Secretory otitis media, exudative otitis media: pathogenesis, clinic, methods of surgical treatment.
33. Congenital defects of the nose
34. Furuncle of nose, clinic, treatment.
35. Acute rhinitis: etiology, pathogenesis, clinic and treatment.
36. Chronic rhinitis: etiology, pathogenesis, pathoanatomy, classification.
37. Vasomotor and allergic rhinitis: etiology, clinic, treatment.
38. Haematoma and abscess of nasal septum: clinic, treatment.
39. Deviation of nasal septum, synechia and atresia of nasal cavity; clinic, treatment.
40. Classification of acute and chronic sinusitis.
41. General and local signs of sharp and chronic sinusitis.
42. Rinogenic intracranial complications: ways of spreading of infection, types of complications, principles of treatment.
43. Rinogenic orbital complications: ways of spreading of infection, types of complications, principles of treatment.
44. Classification of tonsillitis.
45. Lacunar quinsy: clinic, differential diagnosis, treatment.
46. Second quinsies.
47. Monocytic quinsy: etiology, clinic, treatment.
48. Paratonsillitis and paratonsillar abscess: etiology, classification, treatment.
49. Retropharyngeal abscess in children: clinic, treatment.
50. Adenoiditis: clinic, treatment.
51. Chronic tonsillitis: etiology, pathogenesis, classification, clinic.
52. Types of decompensation of chronic tonsillitis, diagnosis.
53. Conservative and surgical treatment of chronic tonsillitis.
54. Acute and chronic pharyngitis: etiology, clinic, treatment.
55. Acute and chronic laryngitis: etiology, clinic, treatment.

56. Youth angiofibroma of nasopharynx: clinic, diagnostics, methods of delete.
57. Classification of tumors of upper respiratory tracts.
58. Foreign bodies of ear, methods of their delete.
59. Foreign bodies of nose. methods of delete. Rinolith.
60. Traumas of nose and paranasal sinuses: classification, clinic, treatment.

## **12. 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. R.Pasha, J.S.Golub. Otolaryngology-Head and Neck Surgery: Clinical Reference Guid// Paperback, 2017. - 800 p.
5. J. A.Seikel, D.G.Drumright, D.J.Hudock. Anatomy and Physiology for Speech, Language, and Hearing //Format Hardback, 2019. - 700 p.
6. K.S.Helfer, E.L.Bartlett, A.N.Popper, R.R.Fay. Aging and Hearing: Causes and Consequences//Hardback. 2020.– 326p.
7. Z.Mu, J.Fang. Practical Otorhinolaryngology, Head and Neck Surgery: Diagnosis and Treatment//Hardback, 2020.-314p.
8. H.H.Ramadan, F.M.Baroodly. Pediatric Rhinosinusitis// Paperback, 2020. - 300 p.

## **13. Electronic information resources**

1. World Health Organization. URL: [www.who.int/ru/index.html](http://www.who.int/ru/index.html).
2. European Regional Office of the World Health Organization. URL: [www.euro.who.int](http://www.euro.who.int).
3. [www.ama-assn.org](http://www.ama-assn.org) – [American Medical Association](http://www.ama-assn.org)
4. [www.dec.gov.ua/mtd/home/](http://www.dec.gov.ua/mtd/home/) - [State Expert Center of the Ministry of Health of Ukraine](http://www.dec.gov.ua/mtd/home/)
5. <http://bma.org.uk>– [British Medical Association](http://bma.org.uk)
6. [www.gmc-uk.org](http://www.gmc-uk.org)- [General Medical Council \(GMC\)](http://www.gmc-uk.org)
7. [www.bundesaerztekammer.de](http://www.bundesaerztekammer.de) – [German Medical Association](http://www.bundesaerztekammer.de)