



MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION  
Federal state autonomous educational institution  
of higher education  
«Far Eastern Federal University»  
(FEFU)

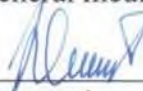
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**SCHOOL OF BIOMEDICINE**

«AGREED»

Head of education program  
«General medicine»

  
\_\_\_\_\_  
(signature) Khotimchenko Yu.S.  
(Full name)  
«09» of July 2019

«APPROVED»

Director of the Department of Clinical  
Medicine

  
\_\_\_\_\_  
(signature) Geltser B.I.  
(Full name)  
«09» of July 2019



**WORKING PROGRAM OF ACADEMIC DISCIPLINE (WPAD)**

**« Otorhinolaringology »**

Education program

Specialty 31.05.01 «General medicine»

**Form of study: full time**

year 6, semester B  
lectures 18 hours  
practical classes 36 hours  
laboratory works not provided  
total amount of in-classroom works 54 hours  
independent self-work 54 hours  
including preparation to exam 27 hours  
control works ()  
pass-fail exam is not provided  
exam year 6, semester B

The working program is drawn up in accordance with the requirements of the Federal state educational standard of higher education (level of training), approved by the order of the Ministry of education and science of the Russian Federation from 09.02.2016 № 95.

The working program of the discipline was discussed at the meeting of the Department of fundamental and clinical medicine. Protocol No. 8, 09 of July 2019

Authors: professor Ussov V.V., senior teacher Guseva E.V.

## ANNOTATION

Discipline " Otorhinolaryngology "is purposed for students enrolled in the educational program 31.05.01"General medicine".

Discipline is implemented in the 6 year as a basic discipline.

Development of the working program of the discipline was made in accordance to the Federal state educational standard of higher education in the specialty 31.05.01 "Medicine" and curriculum of the student trainings.

The total complexity of the discipline is 108 hours, 3 credits.

The course program is based on the basic knowledge gained by students:

The total complexity of the discipline is 108 hours, 3 credits.

The course program is based on the basic knowledge gained by students:

- the ability and willingness to implement the ethical and deontological principles in professional activities (GPC – 4)
- the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems (GPC – 8)
- the capacity for the assessment of morphological and physiological states and pathological processes in the human body for solving professional tasks (GPC – 9)
- the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental, postmortem and other examinations to recognize the incidence or the absence of diseases (PC – 5)

the readiness for educational activities to eliminate the risk factors and promote healthy lifestyles (PC – 16)

**Goal of the course:** formation of the basic knowledge of common problems in the field of otorhinolaryngology, respectively, the competence of the General practitioner in students.

### **Objectives:**

1. To teach students the basics of knowledge of etiology, pathogenesis, main symptoms, diagnostics criteria, principles and methods of sanitary and educational work of the most common ORL- diseases.

2. Students must be able to conduct a questioning of patient with ORL-pathology, evaluate the data obtained, formulate a preliminary clinical diagnosis, outline a plan of additional research methods, fill in the medical history, evaluate the results of the examination, establish and justify a clinical diagnosis.

3. Students must master the clinical methods of examination of ORL-patient; interpretation of the results of laboratory and instrumental methods of diagnostics, the basic algorithm of clinical diagnostics.

4. Students must master the algorithm for performing basic diagnostic and therapeutic measures to provide the first aid in emergency conditions in otorhinolaryngology.

As a result of the learning of this discipline, students form the following general professional and professional competences:

<b>Code and formulation of competence</b>	<b>Stages of competence formation</b>	
the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems (GPC – 8)	Knows	Basic principles of surgical and conservative treatment in patients with ORL-diseases
	Is able to	To determine the tactics of treatment of patients with ORL-diseases.
	Possesses	Skills of working with guidance documents, standards, defining approaches to the treatment of patients with ORL-diseases
the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental, postmortem and other examinations to recognize the incidence or the absence of diseases (PC – 5)	Knows	General and special research methods in the main sections of medicine in patients with ORL-diseases
	Is able to	To obtain information about the development and course of the disease; to apply objective methods of examination of the patient, to identify General and specific signs of the disease; to assess the severity of the patient's condition; to determine the need for and sequence of application of special research methods (laboratory, x-ray, endoscopic, functional), to interpret the data obtained in patients with diseases of ORL-organs.
	Possesses	Skills in order to establish the diagnosis and to provide expert care to patients with diseases of

		ORL organs.
the ability of determining the patient's basic pathological conditions, symptoms, syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health, the 10th review. (PC – 6)	Knows	modern classification of diseases in accordance with the international statistical classification of diseases and problems related to health and problems, x revision; clinical picture of the main pathological conditions, symptoms, syndromes, features of the course and possible complications of the most common-diseases of ORL-organs.
	Is able to	To determine in patients the main pathological conditions, symptoms, syndromes of ORL-diseases in accordance with The international statistical classification of diseases and health-related problems, x view
	Possesses	Clinical examination of the patient's ORL-organs; assessment of the changes detected during the examination and the formulation of the preliminary diagnosis; preparation of the examination plan taking into account the preliminary diagnosis; formulation of the diagnosis according to The international statistical classification of diseases and health-related problems, x revision
the ability to determining the tactics of patient surveillance with different nosological entities. (PC – 8)	Knows	Basic tactics of management of patients with acute and chronic diseases of ORL-organs
	Is able to	Make a program of diagnostic and therapeutic measures for chronic and acute diseases of ORL-organs
	Possesses	Make a treatment plan in accordance with the standards for patients with ORL-diseases.

The following methods of active/ interactive learning are used to form the above competences within the discipline " Otorhinolaringology ":

1. It provides for practical training using computer training programs.
2. For the organization of independent work it is offered to prepare abstracts and reports for performance in group and at student conference; and also preparation for practical employment, work with additional literature, preparation of abstracts, occupation-conference.

The share of practical training conducted in interactive forms is 10% of classroom time; independent extracurricular work-50% of the time

# **I. THE STRUCTURE AND CONTENT OF THE THEORETICAL PART OF THE COURSE (18 HOURS)**

## **Module I. Problems of organization of ORL-care in Russia (2 hours)**

### **Theme 1. Introduction to otorhinolaryngology**

Introduction to otorhinolaryngology, its content, objectives, place of otorhinolaryngology among other branches of medical knowledge. History of the domestic otorhinolaryngology development, its achievements and problems. Anatomical and physiological features of ORL-organs. Pathology of the upper respiratory tract and ear. The relationship of ORL-diseases with the pathology of other organs and systems ORL assistance organization.

## **Module II. Methods of examination of ORL-organs (2 hours)**

### **Theme 1. Propaedeutics (anatomy, physiology, methods of study of ORL-organs)**

Clinical anatomy and physiology of the nose, paranasal sinuses, pharynx, larynx, trachea, esophagus. Method of research. Clinical anatomy of the ear. Structure, functions and properties of the auditory analyzer. Structure, functions and properties of the statokinetic analyzer. Methodology and technique of examination of ORL-organs: visual inspection, palpation, percussion, ORL mechanical inspection: vestibulectomy, anterior rhinoscopy, pharyngoscopy, otoscopy. Study of respiratory and olfactory function of the nose.

## **Module III. Diseases of ORL-organs (14 hours)**

### **Theme 1. Diseases of nose and paranasal sinuses (2 hours)**

Morphological and physiological features of the nose and paranasal sinuses. Pathogenesis, symptoms, diagnostics and treatment principles of diseases of the nose and paranasal sinuses. Rhinitis. Acute and chronic sinusitis. Intracranial and intraocular complications of inflammatory diseases of nose and paranasal sinuses.

## **Theme 2. Throat diseases (2 hours)**

Morphological and physiological characteristics of the pharyngeal lymphoepithelial ring. Prevalence, etiology, pathogenesis, symptoms, diagnostics and principles of treatment of acute and chronic diseases of pharynx. Primary and secondary acute diseases of the pharyngeal ring lymphoid tissue, complications. Chronic tonsillitis. Classification of chronic tonsillitis. The value of tonsillitis in clinic of internal and childhood diseases. Prevention of chronic diseases of the pharynx.

## **Theme 3. Diseases of the larynx (2 hours)**

Diseases of the larynx. Prevalence, etiology, pathogenesis, symptoms, diagnostics and principles of treatment of acute and chronic diseases of larynx: acute laryngitis, acute laryngotracheitis in children, laryngeal quinsy, phlegmonous laryngitis, chondrophora of the larynx, diphtheria of larynx, chronic laryngitis – catarrhal, hypertrophic, atrophic, myogenic and neurogenic paresis and paralysis of the larynx. The syndrome of larynx stenosis. Surgeries: conicotomy and tracheotomy.

## **Theme 4. Ear diseases (2 hours)**

Diseases of the external and middle ear. Prevalence, etiology, pathogenesis, symptoms, diagnostics and treatment principles of the diseases of outer and middle ear and their complications.

Prevalence, etiology, pathogenesis, symptoms, diagnostics and principles of treatment of chronic diseases of middle ear. Otogenic intracranial complications: meningitis, brain and cerebellum abscesses, sinus thrombosis.

## **Theme 5. Non-purulent ear diseases and hearing loss (2 hours)**

Prevalence, etiology, pathogenesis, symptoms, diagnostics and principles of treatment of non-purulent ear diseases: Meniere's disease, adhesive medial otitis,

otosclerosis. Hearing loss and deafness. Hearing aid and cochlear implantation.  
Vestibular dysfunction

#### **Theme 6. Urgent ORL help (2 hours)**

Emergency medical condition in ENT clinics: nasal bleeding, foreign bodies, trauma of ENT.

#### **Theme 7. Tumors of ORL-diseases (2 hours)**

Tumors and tumor-like formations in ENT organs. Prevalence, symptoms, diagnostics and treatment principles of benign, margin and malignant tumors of the upper respiratory tract and ear. Prevalence, etiology, pathogenesis, symptoms, diagnostics and treatment principles of infectious (tuberculosis, scleroma, syphilis) and non-infectious (Wegener granulomatosis) granulomas of the upper respiratory tract and ear.

### **Module IV. Medical and occupational examination in otorhinolaryngology.**

#### **Theme 1. Medical and labor expertise in otorhinolaryngology. Occupational diseases of ORL-organs.**

The essence of professional selection. The importance of professional advice. Professional selection by auditory and vestibular function. Medical and occupational expertise. Determination of the degree and origin of disability due to diseases of ORL-organs.

## **II. THE STRUCTURE AND CONTENT OF THE PRACTICAL PART OF THE COURSE (36 HOURS)**

#### **Theme 1. Introduction to otorhinolaryngology (2 hours)**

Introduction to otorhinolaryngology, its content, objectives, place of otorhinolaryngology among other branches of medical knowledge. History of development of the domestic otorhinolaryngology development, its achievements

and problems. Anatomical and physiological features of ORL-organs. Pathology of the upper respiratory tract and ear. The relationship of ORL-diseases with the pathology of other organs and systems. ORL assistance organization.

**Theme 2. Propaedeutics (anatomy, physiology, methods of ORL-organs examination) (4 hours)**

Clinical anatomy and physiology of nose, paranasal sinuses, pharynx, larynx, trachea, esophagus. Methods of examination. Clinical anatomy of the ear. Age peculiarities of anatomy and physiology of ORL-organs. Structure, functions and properties of the auditory analyzer. Structure, functions and properties of the statokinetic analyzer. Methodology and technique of research of ORL-organs: visual inspection, palpation, percussion, ORL mechanical inspection: vestibulectomy, anterior rhinoscopy, pharyngoscopy, otoscopy. Study of respiratory and olfactory function of the nose.

**Theme 3. Diseases of nose and paranasal sinuses (4 hours)**

Morphological and physiological features of nose and paranasal sinuses. Pathogenesis, symptoms, diagnostics and treatment principles for diseases of nose and paranasal sinuses: nose injuries, conchae atresia, nasal septum curvature, nose boils, hematoma and abscess of the nasal septum, acute rhinitis, chronic rhinitis (catarrhal, hypertrophic, atrophic, vasomotor, allergic), acute and chronic sinusitis. Differential diagnostics with pathology of maxillofacial region. Intracranial and intraocular complications of inflammatory diseases of nose and paranasal sinuses.

**Theme 4. Anatomy, morphology and pathology of lymphoepithelial ring of pharynx (2 hours)**

Morphological and physiological characteristics of lymphoepithelial ring of pharynx. Prevalence, etiology, pathogenesis, symptoms, diagnostics and principles of treatment of acute and chronic diseases of the pharynx.



### **Theme 5. Acute inflammatory processes in the pharynx and their complications (2 hours)**

Acute pharyngitis. Hypertrophy of the palatine and pharyngeal tonsils. Acute adenoiditis. Retropharyngeal abscess. Classification of tonsillitis. Acute primary tonsillitis-catarhal, lacunar, follicular and ulcerative-membranous angina. Possible complications: acute paratonsillitis, peritonsillar abscess, parapharyngeal and parapharyngeal abscess, neck tonsillogenic adenophlegmone, mediastinitis, sepsis.

### **Theme 6. Acute secondary tonsillitis (2 hours)**

Secondary acute tonsillitis – tonsillitis in infectious diseases (diphtheria, scarlet fever, tularemia, typhoid fever) and blood diseases (infectious mononucleosis, agranulocytosis, alimentary-toxic aleikia, leukemia).

### **Theme 7. Chronic tonsillitis (2 hours)**

Classification of chronic tonsillitis: specific in infectious granulomas and nonspecific (compensated and decompensated forms). The value of tonsillitis in the clinic of internal and childhood diseases. Prevention of chronic diseases of the pharynx.

### **Theme 8. Diseases of larynx (2 hours)**

Diseases of the larynx. Prevalence, etiology, pathogenesis, symptoms, diagnostics and treatment principles of the acute and chronic diseases of the larynx: acute laryngitis, acute laryngotracheitis in children, laryngeal quinsy, phlegmonous laryngitis, chondrophora of the larynx, diphtheria of larynx, chronic laryngitis – catarrhal, hypertrophic, atrophic, myogenic and neurogenic paresis and paralysis of the larynx. The syndrome of stenosis of the larynx. Surgeries: conicotomy and tracheotomy.

### **Theme 9. Diseases of external and middle ear (2 hours)**

Prevalence, etiology, pathogenesis, symptoms, diagnostics and treatment principles of diseases of external and middle ear: injuries of external ear, cerumen impaction, acute and chronic otitis externa, otomycosis, tubal dysfunction and exudative otitis media, acute inflammation of the middle ear and its complications. Mastoiditis, otoantritis.

**Theme 10. Chronic inflammation of the middle ear in childhood (2 hours)**

Prevalence, etiology, pathogenesis, symptoms, diagnostics and treatment principles of chronic diseases of the middle ear: chronic purulent otitis media – mesothympanitis and epithympanitis. Otogenic intracranial complications: meningitis, brain and cerebellum abscesses, sinus thrombosis.

**Theme 11. Non-purulent ear diseases and hearing loss (2 hours)**

Prevalence, etiology, pathogenesis, symptoms, diagnostics and treatment principles of the non-purulent ear diseases: Meniere's disease, adhesive otitis media, otosclerosis. Hearing loss and deafness. Hearing aid and cochlear implantation. Vestibular dysfunction

**Theme 12. Urgent ORL care (2 hours)**

Emergency medical condition of ENT organs: nasal bleeding, foreign bodies, trauma of ENT organs.

**Theme 13. Tumors of ORL-organs (2 hours)**

Tumors and tumor-like formations of ENT organs. Prevalence, clinical features, diagnostics and treatment principles of benign (papilloma, hemangioma, fibroma, osteoma), margin (juvenile angiofibroma of the skull base, tympanometry paraganglioma) and malignant (cancer, sarcoma, melanoblastoma) tumors of the upper respiratory tract and ear. Prevalence, etiology, pathogenesis, symptoms,

diagnostics and treatment principles of infectious (tuberculosis, scleroma, syphilis) and non-infectious (Wegener granulomatosis) granulomas of the upper respiratory tract and ear.

#### **Theme 14. Medical and occupational expertise in otorhinolaryngology.**

##### **Occupational diseases of ORL-organs (2 hours)**

The essence of professional selection. The importance of professional advice. Professional selection by auditory and vestibular function. Medical and occupational expertise. Evaluation of the degree and origin of disability due to diseases of ORL-organs.

##### **Theme 15. Credit lesson (4 hours)**

### **III. TRAINING AND METHODOLOGICAL SUPPORT INDEPENDENT SELF-WORK OF STUDENTS**

The main content of the topics, evaluation tools are presented in the WPAD: terms and concepts necessary for mastering the discipline.

During the mastering the course “Otorhinolaringology”, the student will have to do a large amount of independent self-work, including preparation for seminars and writing an essay.

Practical classes help students to deeper learn the material, to acquire the skills of creative work on documents and primary sources.

Plans for practical classes, their topics, recommended literature, the purpose and objectives of its study are communicated by the teacher at the introductory classes or in the curriculum for the discipline.

Before starting to study the topic, it is necessary to familiarize yourself with the basic questions of the practical training plan and the list of recommended literature.

Starting the preparation for the practical lesson, first of all it is necessary to refer to the lecture notes, sections of textbooks and teaching aids in order to get a general idea of the place and significance of the topic in the course being studied. Then work with additional literature, make notes on the recommended sources.

In the process of studying the recommended material it is necessary to understand the construction of the topic being studied, highlight the main points, trace their logic and thereby get into the essence of the problem being studied.

It is necessary to keep records of the material being studied in the form of an outline, which, along with the visual, includes the motor memory and allows you to accumulate an individual fund of auxiliary materials for a quick repetition of what you read, to mobilize accumulated knowledge. The main forms of writing: a plan (simple and detailed), extracts, theses.

In the preparation process, it is important to compare the sources, think over the material being studied and build an algorithm of actions, carefully consider your oral presentation.

At a practical lesson, each participant should be ready to speak on all the questions posed in the plan, to be as active as possible in their consideration. The speech should be convincing and reasoned, and simple reading of an essay is not allowed. It is important to show own attitude to what is being said, express your personal opinion, understanding, substantiate it and draw the right conclusions from what has been said. Student can refer to notes of references and lectures, directly to primary sources, use the knowledge of monographs and publications, facts and observations of modern life, etc.

A student who did not have time to speak at a practical lesson can present a prepared summary to the teacher for verification and, if necessary, answer the teacher's questions on the practical lesson to get a credit score on this topic.

The teaching and methodological support of students' independent work in the discipline "Life safety" is presented in Appendix 1 and includes:

- characteristics of tasks for independent self-work of students and methodological recommendations for their implementation;

- requirements for the reports and presentation of the results of independent self-work;
- criteria for assessment of execution of the independent self-work.

## IV. MONITORING THE ACHIEVEMENT OF THE COURSE OBJECTIVES

Competence and its code		Stages of competence formation			
No.	Controlled sections / topics of disciplines	Codes and stages of the formation of competencies	Evaluation tools		
			Current control	Intermediate certification / exam	
1	<b>Module I.</b> Problems of organization of ORL-care in Russia <b>Module II.</b> Methods of examination of ORL-organs <b>Module III.</b> Diseases of ORL-organs <b>Module IV.</b> Medical and occupational examination in otorhinolaryngology	the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems (GPC – 8)	Knows	EO-1 Interview	Questions of final control A semester - 1-36
			Is able to	PW-1 Test	PW-1 Test
			Possesses	EO-3 Report	EO2 Colloquium
	<b>Module I.</b> Problems of organization of ORL-care in Russia <b>Module II.</b> Methods of examination of ORL-organs <b>Module III.</b> Diseases of ORL-organs <b>Module IV.</b> Medical and occupational examination in otorhinolaryngology	the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental, postmortem and other examinations to recognize the incidence or the absence of diseases (PC – 5)	Knows	EO-1 Interview	Questions of final control A semester - 1-38
			Is able to	PW-1 Test	PW-1 Test
			Possesses	EO-3 Report	EO2 Colloquium
	<b>Module I.</b> Problems of organization of ORL-care in Russia <b>Module II.</b> Methods of examination of ORL-organs <b>Module III.</b> Diseases of ORL-organs <b>Module IV.</b> Medical and occupational examination in otorhinolaryngology	the ability of determining the patient's basic pathological conditions, symptoms, syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health, the 10th review. (PC – 6)	Knows	EO-1 Interview	Questions of final control A semester - 36-110
			Is able to	PW-1 Test	PW-1 Test
			Possesses	EO-3 Report	EO2 Colloquium
	<b>Module I.</b> Problems of organization of ORL-care in Russia <b>Module II.</b> Methods of examination of ORL-organs <b>Module III.</b> Diseases of ORL-organs <b>Module IV.</b> Medical and occupational examination in otorhinolaryngology	the ability to determining the tactics of patient surveillance with different nosological entities. (PC – 8)	Knows	EO-1 Interview	Questions of final control A semester - 1-38
			Is able to	PW-1 Test	PW-1 Test
			Possesses	EO-3 Report	EO2 Colloquium

*Approximate types of assessment tools: interview on situational tasks, written or computer testing, standard calculations, individual tasks, abstract, essay, etc.*

Control and methodological materials as well as criteria and indicators necessary for the assessment of knowledge and skills and characterizing the stages of the formation of competencies in the process of mastering the educational program are presented in Appendix 2.

## **V. A LIST OF TEXTBOOKS AND METHODOLOGICAL SUPPORT OF THE DISCIPLINE**

### **Main literature**

1. Pathology of the Head and Neck / Antonio Cardesa, Pieter J. Slootweg, Nina Gale, Alessandro Franchi / Springer-Verlag Berlin Heidelberg 2016

[https://link.springer.com/book/10.1007/978-3-662-49672-](https://link.springer.com/book/10.1007/978-3-662-49672-5#editorsandaffiliations)

[5#editorsandaffiliations](https://link.springer.com/book/10.1007/978-3-662-49672-5#editorsandaffiliations)

2. Regenerative Medicine in Otolaryngology / Juichi Ito / Springer Japan 2015

[https://link.springer.com/book/10.1007/978-4-431-54856-](https://link.springer.com/book/10.1007/978-4-431-54856-0#editorsandaffiliations)

[0#editorsandaffiliations](https://link.springer.com/book/10.1007/978-4-431-54856-0#editorsandaffiliations)

### **Additional literature**

1. Color Atlas of Head and Neck Surgery / Siba P. Dubey, Charles P. Molumi / Springer International Publishing Switzerland 2015

[https://link.springer.com/book/10.1007/978-3-319-15645-](https://link.springer.com/book/10.1007/978-3-319-15645-3#authorsandaffiliationsbook)

[3#authorsandaffiliationsbook](https://link.springer.com/book/10.1007/978-3-319-15645-3#authorsandaffiliationsbook)

## LIST OF INFORMATION TECHNOLOGIES AND SOFTWARE

The location of the computer equipment on which the software is installed, the number of jobs	List of licensed software
Multimedia auditorium Vladivostok Russian island, Ayaks 10, building 25.1, RM. M723 Area of 80.3 m2 (Room for independent work)	Windows Seven enterprise SP3x64 Operating System Microsoft Office Professional Plus 2010 office suite that includes software for working with various types of documents (texts, spreadsheets, databases, etc.); 7Zip 9.20 - free file archiver with a high degree of data compression; ABBYY FineReader 11 - a program for optical character recognition; Adobe Acrobat XI Pro 11.0.00 - software package for creating and viewing electronic publications in PDF; WinDjView 2.0.2 - a program for recognizing and viewing files with the same format DJV and DjVu.

In order to provide special conditions for the education of persons with disabilities all buildings are equipped with ramps, elevators, lifts, specialized places equipped with toilet rooms, information and navigation support signs

### VI. GUIDELINES FOR LEARNING OF THE DISCIPLINE

In the process of studying the discipline "Otorhinolaryngology" various methods and tools for learning the educational content are offered: lecture, practical exercises, tests, testing, independent work of students.

The lecture is the main active form of performing the classroom studies, explaining the fundamental and most difficult theoretical sections of human anatomy, which involves intense mental activity of student and this is especially difficult for first-year students. A lecture should always be informative, educational, and organizing. Lecture notes help to learn the theoretical material of the discipline. Listening to a lecture it is necessary to take note of the most important and preferably by student's own formulations, which allows to memorize the material better. Synopsis is useful when it is written by a student. Student can develop his/her own word reduction scheme. The name of the paragraphs can be highlighted with colored markers or pens. In a lecture the teacher gives only a small fraction of the material on one or other topics that are



given in textbooks. Therefore, when working with the lecture notes, it is always necessary to use the main textbook and additional literature that are recommended in this discipline. It is such serious work of a student with lecture material that allows him to achieve success in mastering new knowledge. For the presentation of the lecture course on the discipline "Otorhinolaryngology", the following forms of active learning are used: lecture-conversation, lecture-visualization, which are made on the basis of knowledge obtained by students in interdisciplinary disciplines: "Human Anatomy", "Normal Physiology" "Pathological anatomy", "Pathological physiology". Presentations, tables, charts on a blackboard are used to illustrate the verbal information. In the course of the presentation of the lecture material posed questions or questions with elements of discussion.

### **Lecture – visualization**

Lecture is accompanied by tables, slideshows, which contributes to a better perception of the material. Lecture - visualization requires certain skills - verbal presentation of the material must be accompanied and combined with visual form. The information presented in the form of diagrams on the board, tables, slides, allows you to form problematic issues, and contributes to the development of professional thinking of future specialists.

### **Lecture - conversation.**

Lecture-conversation, or it is also called in pedagogy a form of education “dialogue with the audience,” is the most common form of active learning and allows you to involve students in the learning process, as there is direct contact with the teacher audience. Such contact is achieved in the course of the lecture, when students are asked questions of a problem or informational matter, or when invite students to ask the questions themselves. Questions are offered to the entire audience, and any of the students can offer their own answer, another can complement it. At the same time, from lecture to lecture it is possible to identify more active students and try to activate students who are not participating in the

work. This form of lecture allows teacher to engage students in work, increase their attention, thinking, gain collective experience, learn how to formulate questions. The advantage of the lecture-conversation is that it allows to attract the attention of students to the most important issues of the topic, to determine the content and pace of presentation of educational material.

### **Lecture - press conference**

At the beginning of the lesson, the teacher announces the topic of the lecture and invites students to ask him in writing questions on this topic. Each student must formulate the most interesting questions on the topic of the lecture within 2-3 minutes, write them on a piece of paper and pass the note to the teacher. The teacher within 3-5 minutes sorts the questions according to their semantic content and begins to give a lecture. The presentation of the material is presented in the form of a coherent disclosure of the topic, and not as an answer to each question asked, but during the lecture the corresponding answers are formulated. At the end of the lecture, the teacher conducts a final assessment of the questions, revealing the knowledge and interests of the students.

### **Practical classes in the discipline "Otorhinolaringology"**

Practical classes is a collective form of consideration of educational material. Seminars, which are also one of the main types of practical classes designed for in-depth study of the discipline, held interactively. At the workshop on the topic of the seminar, questions are sorted out and then, together with the teacher, they hold a discussion, which is aimed at consolidating the material under discussion, developing skills to debate, develop independence and critical thinking, the students' ability to navigate through large information flows, develop and defend their own position on problematic issues academic disciplines. As active learning methods are used in practical classes: a press conference, a detailed conversation, a dispute. A detailed conversation involves preparing students for each issue of the lesson plan with a uniform list of recommended and additional literature recommended for all. Reports are prepared by students on pre-proposed topics.

Dispute in the group has several advantages. The dispute may be called by the teacher during the course of the lesson or planned by him in advance. In the course of the controversy, students form resourcefulness, quick thinking reaction.

Press conference. The teacher instructs 3-4 students to prepare short reports. Then one of the participants from this group makes a report. After the report, students ask questions that are answered by the speaker and other members of the expert group. Based on the questions and answers, a creative discussion takes place along with the teacher.

## VII. LOGISTICS DISCIPLINE

For practical work, as well as for the organization of independent work, students have access to the following laboratory equipment and specialized classrooms that meet the current sanitary and fire regulations, as well as safety requirements during training and scientific and industrial works:

<b>Name of the equipped rooms and rooms for independent work</b>	<b>List of main equipment</b>
The computer class of the School of biomedical AUD. M723, 15 work placts	<p>Screen, electrically 236*147 cm to trim the screen; Projector DLP technology, 3000 ANSI LM, WXGA with 1280x800 resolution, 2000:1 Mitsubishi EW330U; Subsystem of specialized mounting equipment course-2007 Tuarex; Subsystem of videocommunity: matrix switch DVI and DXP 44 DVI Pro advertising; extension cable DVI over twisted pair DVI 201 TX/RX advertising; Subsystem of audiocommentary and sound; speaker system for ceiling si 3ct LP Extron on from; digital audio processor DMP 44 LC the Extron; the extension for the controller control IPL T CR48; wireless LAN for students is provided with a system based on 802.11 a/b/g/N 2x2 MIMO(2SS) access points.</p> <p>Monoblock HP Loope 400 all-in-one 19.5 in (1600x900), core i3-4150t, 4GB DDR3-1600 (1x4GB), 1TB HDD 7200 SATA, and a DVD+ / -RW, GigEth, Wi-Fi and BT, the USB port of roses/MSE, Win7Pro (64-bit)+Win8.1Pro(64-bit), 1-1-1 Wty</p>
Multimedia audience	<p>Monoblock Lenovo C360G-i34164G500UDK; projection Screen Projecta Elpro Electrol, 300x173 cm; Multimedia projector, Mitsubishi FD630U, 4000 ANSI Lumen 1920 x 1080; Flush interface with automatic retracting cables TLS TAM 201 Stan; Avervision CP355AF; lavalier Microphone system UHF band Sennheiser EW 122 G3 composed of a wireless microphone and receiver; Codec of videoconferencing LifeSizeExpress 220 - Codeconly - Non-AES; Network camera Multipix MP-HD718; Two</p>

	LCD panel, 47", Full HD, LG M4716CCBA; Subsystem of audiocommentary and sound reinforcement; centralized uninterrupted power supply
Reading rooms of the Scientific library of the University open access Fund (building a - 10)	Monoblock HP Loope 400 All-in-One 19.5 in (1600x900), Core i3-4150T, 4GB DDR3-1600 (1x4GB), 1TB HDD 7200 SATA, DVD+/-RW, GigEth, wifi, BT, usb kbd/mse, Win7Pro (64-bit)+Win8.1Pro(64-bit), 1-1-1 Wty Speed Internet access 500 Mbps. Jobs for people with disabilities equipped with displays and Braille printers.; equipped with: portable reading devices flatbed texts, scanning and reading machines videovelocitly with adjustable color spectrums; increasing electronic loops and ultrasonic marker
Accreditation-simulation center of the school of Biomedicine	



MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION  
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**SCHOOL OF BIOMEDICINE**

**TRAINING AND METHODOLOGICAL SUPPORT OF INDEPENDENT  
WORK OF STUDENTS**

**on discipline « Otorhinolaryngology »**

**Direction of training (specialty) 31.05.01 General medicine**

**Form of training: full-time**

Vladivostok

2018

Independent self-work includes:

- 1) library or homework with educational literature and lecture notes,
- 2) preparation for practical classes,
- 3) preparation for testing and control interview (credit)

The procedure for the performance of independent self-work by students is determined by the schedule for the performance of independent self-work on the discipline.

### **Schedule of independent work on the discipline**

<b>No.</b>	<b>Date / Deadline</b>	<b>Type of independent work</b>	<b>Estimated norms of time for execution (hour)</b>	<b>Form of control</b>
1	2-3 week	Essay	18	OR-3-Report
2	4-15 week	Presentation on the essay topic	9	POA-3-Report
3	17-18 week	Preparation for credit	27	OA-1-Interview PW-1 - Test

### **Topics for reports and essays**

There are 54 hours of independent work within the discipline, within the framework of these hours 2 oral reports are must be carried out on the proposed topics.

1. Modern methods of diagnostics and treatment of chronic tonsillitis – compensated form.
2. Rational drug therapy of chronic rhinosinusitis.
3. Complex treatment of laryngeal papillomatosis.
4. Clinical and epidemiological aspects of allergic rhinitis.
5. Sudden hearing loss and deafness – symptoms, diagnostics, treatment.
6. Labyrinths: limited, diffuse serous and purulent. Pathways of infection to the inner ear.

7. Meniere's Disease.
8. Sensorineural deafness.
9. Iatrogenic ototoxicity.
10. Professional factors of hearing loss.
11. Deafness and deaf-mutism. Principles of teaching the deaf persons
12. Hearing aid, cochlear implantation.

### **Guidelines for writing and design of an essay**

Essay is a creative activity of the student reproducing in its structure the research activities to solve theoretical and applied problems in a particular branch of scientific knowledge. That is why the course certification work is an essential component of the educational process in higher education.

The essay is a model of scientific research, independent self-work in which a student solves a problem of a theoretical or practical nature, applying the scientific principles and methods of a given branch of scientific knowledge. The result of this scientific search may have not only subjective, but also objective scientific novelty, and therefore can be presented for discussion by the scientific community in the form of a scientific report or presentation at scientific-practical conferences, as well as in a form of research article.

Essay involves the acquisition of skills for building business cooperation, based on ethical standards of scientific activity. Purposefulness, initiative, disinterested cognitive interest, responsibility for the results of their actions, conscientiousness, competence - personality traits that characterize the subject of research activities corresponding to the ideals and norms of modern science.

The essay is an independent educational and research activity of the student. The teacher assists in a consultative manner and assesses the process and the results of the activity. Teacher provides an approximate topic of the essay work, specifies the problem and topic of research with a student or intern, helps to plan and organize research activities, assigns time and a minimum number of consultations.

The teacher receives the text of the essay for verification at least ten days before the defense.

Generally there is a certain structure of the essay, the main elements of which in order of their location are the following:

1. Title page.
2. Goal.
3. Table of Contents
4. List of abbreviations, symbols and terms (if necessary).
5. Introduction.
6. Main part.
7. Conclusion.
8. Reference list.
9. Appendixes.

The title page contains educational institution, graduating department, author, teacher or supervisor, research topic, place and year of the essay.

The title of the essay should be as short as possible and fully consistent with its content.

The table of contents (content) reflects the names of the structural parts of the essay and the pages on which they are located. The table of contents should be placed at the beginning of work on one page.

The presence of a detailed introduction - a mandatory requirement for the abstract. Despite the small volume of this structural part, its preparation causes considerable difficulties. However, this is a qualitatively executed introduction that is the key to understanding the entire work, which testifies to the professionalism of the author.

Thus, the introduction is a very crucial part of the essay. The introduction should start with a justification of the relevance of the chosen topic. As applied to the essay, the concept of "relevance" has one feature. From how the author of the essay can choose a topic and how correctly he understands and evaluates this topic



from the point of view of modernity and social significance, characterizes his scientific maturity and professional preparedness.

In addition, in the introduction it is necessary to isolate the methodological basis of the essay, name the authors, whose works constituted the theoretical basis of the study. A review of the literature on the topic should show the author's thorough acquaintance with special literature, his ability to systematize sources, critically examine them, highlight the essential and determine the most important in the up-to-date state of knowledge of the topic.

The introduction reflects the importance and relevance of the chosen topic, defines the object and subject, purpose and objectives, and the chronological framework of the study.

The introduction ends with a statement of the general conclusions about the scientific and practical significance of the topic, the degree of its knowledge and sources, and the hypothesis being put forward.

The main part describes the essence of the problem, reveals the topic, determines the author's position, factual material is given as an argument and for display of further provisions. The author must demonstrate the ability to consistently present the material while analyzing it simultaneously. Preference is given to the main facts, rather than small details.

The essay ends with the final part called "conclusion". Like any conclusion, this part of the essay serves as a conclusion due to the logic of the study which is a form of synthesis accumulated in the main part of scientific information. This synthesis is a consistent, coherent presentation of the results obtained and their relation to a common goal and specific tasks set and formulated in the introduction. At this place there is a so-called "output" knowledge, which is new in relation to the original knowledge. The conclusion may include suggestions of practical matter, thereby increasing the value of theoretical materials.

So, the conclusion of the essay should contain:

- a) presents the conclusions of the study;
- b) theoretical and practical significance, novelty of the essay;

c) indicated the possibility of applying the results of the study.

After conclusion it is acceptable to place the reference list of the literature used throughout. This list is one of the essential parts of the essay and reflects the independent creative work of the author of the essay.

The list of sources used is placed at the end of the work. It is made either in alphabetical order (by the name of the author or the name of the book), or in the order in which the references appear in the text of the prepared work. In all cases, the full title of the work, the names of the authors or the editor of publication are indicated if the writing team involved a group of authors, data on the number of volumes, the name of the city and publisher in which the work was published, year of publication, number of pages.

### **Methodical recommendations for the presentation preparation**

For preparation of presentation it is recommended to use: PowerPoint, MS Word, Acrobat Reader, LaTeX-bev package. The simplest program for creation of presentations is Microsoft PowerPoint. To prepare a presentation, it is necessary to process the information collected while writing the essay.

The sequence of preparation of the presentation:

1. Clearly state the purpose of the presentation.
2. Determine what the presentation format will be: live presentation (then how long it will be) or e-mail (what will be the context of the presentation).
3. Select the entire content of the presentation and build a logical chain of presentation.
4. Identify key points in the content of the text and highlight them.
5. Determine the types of visualization (pictures) to display them on slides in accordance with the logic, purpose and specificity of the material.
6. Choose the design and format the slides (the number of pictures and text, their location, color and size).
7. Check the visual perception of the presentation.

The types of visualization include illustrations, images, charts, tables. The

illustration is a representation of a real-life visual. The images - as opposed to illustrations - are metaphor. Their purpose is to cause an emotion and create an attitude towards it, to influence the audience. With the help of well-designed and presented images, information can remain permanently in a person's memory. Chart is visualization of quantitative and qualitative relationships. They are used for convincing data demonstration, for spatial thinking in addition to the logical one. Table is a specific, visual and accurate data display. Its main purpose is to structure information, which sometimes facilitates the perception of data by the audience.

#### *Practical hints on preparing a presentation*

- printed text + slides + handouts are prepared separately;
- slides -visual presentation of information that should contain a minimum of text and maximum of images that bring a meaning, to look visually and simply;
- textual content of the presentation - oral speech or reading, which should include arguments, facts, evidence and emotions;
- recommended number of slides 17-22;
- mandatory information for the presentation: the subject, surname and initials of the speaker; message plan; brief conclusions from all that has been said; list of sources used;
- handouts should be provided with the same depth and coverage as the live performance: people trust more what they can carry with them than disappear images, words and slides are forgotten, and handouts remain a constant tangible reminder; handouts are important to distribute at the end of the presentation; Handouts should be different from slides, should be more informative.

#### **Methodical instructions on preparation for practical classes**

Control of the results of the independent self-work is performed in the course of practical training, oral interviews, interviews, solving case study tasks, control work, including testing.

1. For practical training student must prepare: repeat the lecture material, read the desired section on the topic in the textbook.
2. The lesson begins with a quick frontal oral questioning on a given topic.
3. In classroom students work with lecture notes, slides.
4. For classes it is necessary to have a notebook for writing theoretical material, a textbook.
6. At the end of the lesson the homework is given on a new topic and is invited to make tests on the material just studied in the classroom (summary).
7. Performances and activity of students are evaluated by the current assessment.

### **Guidelines for the preparation of the report**

1. Students have independent choice of the topic of the report.
2. Selection of literary sources on the selected topic from the recommended main and additional literature is offered in the working program of the discipline, as well as work with the resources of the information and telecommunication network "Internet" specified in the working program.
3. Working with the text of scientific books textbooks must not be reduced to the reading of material, it is also necessary to analyze the selected literature, compare the presentation of the material on the topic in different literary sources, choose materials, so that the disclose the topic of the report.
4. The analyzed material is to be summarized, the most important thing is that it should not be just a conscientious rewriting of the source texts from selected literary sources without any comments and analysis.
5. On the base of analysis and synthesis of literature data, student makes a plan of the report, on the base of which the text of the report is prepared.
6. The report should be structured logically, the material is presented integrally, coherently and consistently, conclusions must be made. It is desirable that the student could express his/her opinion on the formulated problem.
7. The report takes 7-10 minutes. The report is told, not read on paper.

### **Guidelines for working with literature**

1. We need to make an initial list of sources. The basis can be a list of literature recommended in the working program of the course. For convenience, you can create your own card file of selected sources (author's name, title, characteristics of the publication) in the form of a working file in the computer. This electronic file has the advantage, because it allows you to add sources, replace the need for one to the other, to remove those that were not relevant to the subject. The initial list of literature can be supplemented using the electronic catalogue of the FEFU library, and do not hesitate to ask for help from the library staff.
2. Working with literature on a particular topic, it is necessary not only to read, but also to learn the method of its study: to make a brief summary, algorithm, scheme of the read material, which allows you to understand it faster, remember. It is not recommended to rewrite the text verbatim.

### **Criteria for evaluation of the oral report**

Oral report on the discipline "Otorhinolaryngology" are evaluated by the grade system: 5, 4, 3.

"grade 5" is given to a student if he expressed the opinion on the formulated problem, reasoned it, having its contents and components precisely defined, able to analyze, generalize material and draw correct conclusions using the main and additional literature, freely answers questions that testifies that he knows and owns material.

"grade 4" is designated to a student, if he/she presents material on the chosen topic coherently and consistently, gives arguments to prove a particular position in the report, demonstrates the ability to analyze the main and additional literature, but admits some inaccuracies in the wording of concepts.

"grade 3" is given to the student if he/she had performed independent analysis of the main and additional literature, however those or other provisions of the report are not always enough reasoned, mistakes are allowed at the presentation

of material and not always fully answers additional questions on the subject of the report.

### **Evaluation criteria for essays.**

The stated understanding of the essay as a holistic copyright text defines the criteria for its evaluation: the novelty of the text; the validity of the source choice; the degree of disclosure of the issue essence; compliance with the requirements for registration.

**Essay novelty:** a) the relevance of the research topic; b) novelty and independence in the problem formulation, formulation of a new aspect of the well-known problem in the establishment of new connections (interdisciplinary, intra-subject, integration); c) ability to work with research and critical literature, systematize and structure research material; d) the appearance of the author's position, independence of assessments and judgments; d) stylistic unity of the text, the unity of genre features.

**The degree of disclosure of the question essence:** a) the plan compliance with an essay; b) compliance with the content of topic and plan of an essay; c) completeness and depth of knowledge on the topic; d) the validity of the methods and techniques of work with the material; e) ability to generalize, draw conclusions, compare different points of view on one issue (problem).

**The validity of the source choice:** a) evaluation of the used literature: whether the most famous works on the research topic are involved (including recent journal publications, recent statistics, reports, references, etc.)

**Compliance with the requirements for registration:** a) How true are the references to the used literature, quotes; b) assessment of literacy and presentation culture (including spelling, punctuation, stylistic culture), knowledge of terminology; c) compliance with the requirements for the volume of essay.

**The reviewer should clearly state** the remarks and questions, preferably with references to the work (possible on specific pages of the work), to research and evidence that the author did not take into account.

**The reviewer may also indicate:** whether student has addressed the topic earlier (essays, written works, creative works, olympic works, etc.) and whether there are any preliminary results; how the graduate has conducted the work (plan, intermediate stages, consultation, revision and processing of the written or lack of a clear plan, rejection of the head recommendations).

**The student submits** an essay for review no later than a week before the defense. The reviewer is the teacher. Experience shows that it is advisable to acquaint the student with the review a few days before the defense. Opponents are appointed by the teacher from the students. For an oral presentation a student needs about 10–20 minutes (approximately as long as he answers with tasks for the exam).

**Grade 5** is given if all the requirements for writing and defending an essay are fulfilled: the problem is indicated and its relevance is justified, a brief analysis of different points of view on the problem under consideration is made and one's own position is logically presented, conclusions are formulated, the topic is fully disclosed, the volume is met, external requirements are met design, given the correct answers to additional questions.

**Grade 4** is given if the basic requirements for the essay and its defense are met, but there are some shortcomings. In particular, there are inaccuracies in the presentation of the material; or there is no logical sequence in the judgments; not sufficient volume of the essay; there are omissions in the design; additional questions for the defense are accompanied with incomplete answers.

**Grade 3** is given if there are significant deviations from the requirements for referencing. In particular: the topic is covered only partially; factual errors in the content of an essay or when answering additional questions; there is no output c.

**Grade 2** - the topic of an essay is not disclosed, a significant misunderstanding of the problem is found.

**Grade 1** - student's essay is not presented.





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**SCHOOL OF BIOMEDICINE**

**ASSESSMENT FUND**  
**on discipline « Otorhinolaringology »**  
**Direction of training (specialty) 31.05.01 General medicine**  
**Form of training: full-time**

Vladivostok  
2018

## Passport of assessment fund

Completed in accordance with the Regulations on the Funds of Evaluation Assets of Educational Programs of Higher Education - Bachelor's Programs, Specialties, FEFU Magistrates, approved by order of the Rector No. 12-13-850 of May 12, 2015.

Code and formulation of competence	Stages of competence formation	
the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems (GPC – 8)	Knows	Basic principles of surgical and conservative treatment in patients with ORL-diseases
	Is able to	To determine the tactics of treatment of patients with ORL-diseases.
	Possesses	Skills of working with guidance documents, standards, defining approaches to the treatment of patients with ORL-diseases
the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental, postmortem and other examinations to recognize the incidence or the absence of diseases (PC – 5)	Knows	General and special research methods in the main sections of medicine in patients with ORL-diseases
	Is able to	To obtain information about the development and course of the disease; to apply objective methods of examination of the patient, to identify General and specific signs of the disease; to assess the severity of the patient's condition; to determine the need for and sequence of application of special research methods (laboratory, x-ray, endoscopic, functional), to interpret the data obtained in patients with diseases of ORL-organs.
	Possesses	Skills in order to establish the diagnosis and to provide expert care to patients with diseases of ORL organs.
the ability of determining the patient's basic pathological conditions, symptoms, syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health, the 10th review. (PC – 6)	Knows	Modern classification of diseases in accordance with the international statistical classification of diseases and problems related to health and problems, x revision; clinical picture of the main pathological conditions, symptoms, syndromes, features of the course and possible complications of the most common-diseases of ORL-organs.
	Is able to	Determine in patients the main pathological conditions, symptoms, syndromes of ORL-diseases in accordance with The international statistical classification of diseases and health-related problems, x view
	Possesses	Clinical examination of the patient's ORL-organs; assessment of the changes detected during the examination and the formulation of the preliminary diagnosis; preparation of the

		examination plan taking into account the preliminary diagnosis; formulation of the diagnosis according to The international statistical classification of diseases and health-related problems, x revision
the ability to determining the tactics of patient surveillance with different nosological entities. (PC – 8)	Knows	Basic tactics of management of patients with acute and chronic diseases of ORL-organs
	Is able to	Make a program of diagnostic and therapeutic measures for chronic and acute diseases of ORL-organs
	Possesses	Make a treatment plan in accordance with the standards for patients with ORL-diseases.

## MONITORING THE ACHIEVEMENT OF THE COURSE OBJECTIVES

Competence and its code		Stages of competence formation			
No.	Controlled sections / topics of disciplines	Codes and stages of the formation of competencies		Evaluation tools	
				Current control	Intermediate certification / exam
1	<b>Module I.</b> Problems of organization of ORL-care in Russia <b>Module II.</b> Methods of examination of ORL-organs <b>Module III.</b> Diseases of ORL-organs <b>Module IV.</b> Medical and occupational examination in otorhinolaryngology	the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems (GPC – 8)	Knows	EO-1 Interview	Questions of final control A semester - 1-36
			Is able to	PW-1 Test	PW-1 Test
			Possesses	EO-3 Report	EO2 Colloquium
	<b>Module I.</b> Problems of organization of ORL-care in Russia <b>Module II.</b> Methods of examination of ORL-organs <b>Module III.</b> Diseases of ORL-organs <b>Module IV.</b> Medical and occupational examination in otorhinolaryngology	the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental, postmortem and other examinations to recognize the incidence or the absence of diseases (PC – 5)	Knows	EO-1 Interview	Questions of final control A semester - 1-38
			Is able to	PW-1 Test	PW-1 Test
			Possesses	EO-3 Report	EO2 Colloquium
	<b>Module I.</b> Problems of organization of ORL-care in Russia <b>Module II.</b> Methods of examination of ORL-organs <b>Module III.</b> Diseases of ORL-organs <b>Module IV.</b> Medical and occupational	the ability of determining the patient's basic pathological conditions, symptoms, syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health, the 10th review.	Knows	EO-1 Interview	Questions of final control A semester - 36-110
			Is able to	PW-1 Test	PW-1 Test
			Possesses	EO-3 Report	EO2 Colloquium

	examination in otorhinolaryngology	(PC – 6)			
	<b>Module I.</b> Problems of organization of ORL-care in Russia <b>Module II.</b> Methods of examination of ORL-organs <b>Module III.</b> Diseases of ORL-organs <b>Module IV.</b> Medical and occupational examination in otorhinolaryngology	the ability to determining the tactics of patient surveillance with different nosological entities. (PC – 8)	Knows	EO-1 Interview	Questions of final control A semester - 1-38
			Is able to	PW-1 Test	PW-1 Test
			Possesses	EO-3 Report	EO2 Colloquium

### The scale of assessment the level of formation of competences

Code and formulation of competence	Stages of the formation of competencies		Criteria	Indicators	Points
GPC-8: the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems	Knows (the threshold level)	Basic principles of surgical and conservative treatment in patients with ORL-diseases	Knowledge of the basic principles of surgical and conservative treatment in patients with ORL-diseases	Formed and structured systematic knowledge of the basic principles of surgical and conservative treatment in patients with ORL-diseases	65-71
	Is able to (advanced)	To determine the tactics of treatment of patients with ORL-diseases.	Ability to determine the tactics of treatment of patients with ORL-diseases	Ready and able to determine the tactics of treatment of patients with ORL-diseases	71-84
	Possesses (high)	Skills of working with guidance documents, standards, defining approaches to the treatment of patients with ORL-diseases	Formed skills of working with guidance documents, standards, defining approaches to the treatment of patients with ORL-diseases	Skills surely to work with guidance documents, standards, defining approaches to the treatment of patients with ORL-diseases	85-100
PC-5: the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental, postmortem and other examinations to recognize the incidence or the absence of diseases	Knows (the threshold level)	General and special research methods in the main sections of medicine in patients with ORL-diseases	Knowledge of general and special research methods in the main sections of medicine in patients with ORL-diseases	Formed and structured systematic knowledge of general and special research methods in the main sections of medicine in patients with ORL-diseases	65-71
	Is able to (advanced)	To obtain information about the development and course of the disease; to apply objective methods of examination of the patient, to identify General and specific	Ability to obtain information about the development and course of the disease; to apply objective methods of examination of the patient, to identify General and specific	Ready and able to obtain information about the development and course of the disease; to apply objective methods of examination of the patient, to	71-84

		signs of the disease; to assess the severity of the patient's condition; to determine the need for and sequence of application of special research methods (laboratory, x-ray, endoscopic, functional), to interpret the data obtained in patients with diseases of ORL-organs.	signs of the disease; to assess the severity of the patient's condition; to determine the need for and sequence of application of special research methods (laboratory, x-ray, endoscopic, functional), to interpret the data obtained in patients with diseases of ORL-organs.	identify General and specific signs of the disease; to assess the severity of the patient's condition; to determine the need for and sequence of application of special research methods (laboratory, x-ray, endoscopic, functional), to interpret the data obtained in patients with diseases of ORL-organs.	
	Possesses (high)	Skills in order to establish the diagnosis and to provide expert care to patients with diseases of ORL organs.	Formed skills to establish the diagnosis and to provide expert care to patients with diseases of ORL organs.	Skills surely to establish the diagnosis and to provide expert care to patients with diseases of ORL organs.	85-100
PC-6: the ability of determining the patient's basic pathological conditions, symptoms, syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health, the 10th review.	Knows (the threshold level)	Modern classification of diseases in accordance with the international statistical classification of diseases and problems related to health and problems, x revision; clinical picture of the main pathological conditions, symptoms, syndromes, features of the course and possible complications of the most common-diseases of ORL-organs.	Knowledge of modern classification of diseases in accordance with the international statistical classification of diseases and problems related to health and problems, x revision; clinical picture of the main pathological conditions, symptoms, syndromes, features of the course and possible complications of the most common-diseases of ORL-organs.	Formed and structured systematic knowledge of modern classification of diseases in accordance with the international statistical classification of diseases and problems related to health and problems, x revision; clinical picture of the main pathological conditions, symptoms, syndromes, features of the course and possible complications of the most common-diseases of ORL-organs	65-71
	Is able to (advanced)	Determine in patients the main pathological conditions, symptoms, syndromes of ORL-diseases in accordance with the international statistical classification of diseases and health-related problems, X view	Ability to determine in patients the main pathological conditions, symptoms, syndromes of ORL-diseases in accordance with the international statistical classification of diseases and health-related problems, X	Ready and to determine in patients the main pathological conditions, symptoms, syndromes of ORL-diseases in accordance with the international statistical classification of diseases and health-	71-84

			view	related problems, X view	
	Possesses (high)	Clinical examination of the patient's ORL-organs; assessment of the changes detected during the examination and the formulation of the preliminary diagnosis; preparation of the examination plan taking into account the preliminary diagnosis; formulation of the diagnosis according to the international statistical classification of diseases and health-related problems, x revision	Formed skills of clinical examination of the patient's ORL-organs; assessment of the changes detected during the examination and the formulation of the preliminary diagnosis; preparation of the examination plan taking into account the preliminary diagnosis; formulation of the diagnosis according to the international statistical classification of diseases and health-related problems, x revision	Skills surely clinically to examine of the patient's ORL-organs; assessment of the changes detected during the examination and the formulation of the preliminary diagnosis; preparation of the examination plan taking into account the preliminary diagnosis;	85-100
PC-8: the ability to determining the tactics of patient surveillance with different nosological entities.	Knows (the threshold level)	Basic tactics of management of patients with acute and chronic diseases of ORL-organs	Knowledge of basic tactics of management of patients with acute and chronic diseases of ORL-organs	Formed and structured systematic knowledge of basic tactics of management of patients with acute and chronic diseases of ORL-organs	65-71
	Is able to (advanced)	Make a program of diagnostic and therapeutic measures for chronic and acute diseases of ORL-organs	Ability to make a program of diagnostic and therapeutic measures for chronic and acute diseases of ORL-organs	Ready and able to make a program of diagnostic and therapeutic measures for chronic and acute diseases of ORL-organs	71-84
	Possesses (high)	Make a treatment plan in accordance with the standards for patients with ORL-diseases.	Formed skills of treatment plan in accordance with the standards for patients with ORL-diseases.	Skills surely to treat plan in accordance with the standards for patients with ORL-diseases.	85-100

### Questions to assess preliminary competencies

1. The concept of environment.
2. The concept of internal environment
3. Mechanical, physical and chemical environmental factors
4. Environmental impact of biological factors on the human body

5. Basics of the anatomical structure of the human body.
6. The concept of metabolism as a mechanism of the human body functioning
7. Tissues of the human body, their structure and function
8. CNS as an integrating system of the human body
9. Features of the central nervous system.

**Control tests** are designed for students studying the course "Otorhinolaryngology". Tests are necessary for both the control of knowledge in the process of the current interim certification, and for the assessment of knowledge, the result of which can be set off.

When working with tests, the student is asked to choose one answer out of three or four proposed. At the same time, the tests vary in their complexity. There are tests among the proposed ones containing several options for correct answers. The student must provide all correct answers.

Tests are designed for both individual and collective solutions. They can be used in the process and classroom, and independent self-work. The selection of tests necessary for the control of knowledge in the process of interim certification is made by each teacher individually.

Results of performance of the test tasks are evaluated by a teacher using a five-grade scale for certification or on system "credit" - "no credit". Grade "excellent" is given if the number of correct answers is more than 90% of the tests offered by the teacher. Grade "good" is given if the number of correct answers is more than 70% of the tests. Grade "satisfactory" is given if the number of correct answers is more than 50% of the tests offered to the student.

### **Questions to the credit lesson on the discipline**

1. Clinical anatomy of nose / external and nasal cavity/.
2. Clinical anatomy of paranasal sinuses.
3. Structure of the nasal mucosa.

4. Age-related features of clinical anatomy of paranasal sinuses, their importance in the pathology of ENT organs in children.
5. Clinical physiology of nose and paranasal sinuses.
6. The role of nasal breathing in physical development of the body and formation of dentition in children.
7. Boil, abscess of the nasal vestibule. The value of disorders of carbohydrate metabolism in the development of boil. Symptoms, treatment.
8. Hematoma and abscess of the nasal septum. Diagnostics, treatment.
9. Curved nasal septum. Indications for surgical treatment.
10. Acute rhinitis. Diagnostics, treatment.
11. Chronic rhinitis. Forms, diagnostics, treatment. Ozena.
12. Vasomotor rhinitis /neurovegetative form and allergic/.
13. Features of sinusitis in children. Osteomyelitis of the upper jaw.
14. Acute sinusitis. The role of odontogenic infection. Diagnostics, treatment.
15. Chronic sinusitis, clinical forms, diagnostics, treatment.
16. Rhinogenic orbital complications. Symptoms, diagnostics, treatment.
17. Rhinogenic intracranial complications. Symptoms, diagnostics, treatment.
18. Nose bleeding. Aid. Ways to stop bleeding.
19. Injuries, foreign bodies in the nose and paranasal sinuses. Principle of treatment.
20. Benign and malignant neoplasms of the nose and paranasal sinuses. Diagnostics and treatment.
21. Clinical anatomy and physiology of the pharynx and esophagus.
22. Clinical anatomy of the nasopharynx.
23. Physiology of lymphadenoid ring of Waldeyer - Pirogov.
24. Structure of tonsils and their function.
25. Adenoids and adenoiditis: Symptoms, diagnostics and treatment.
26. Acute pharyngitis, differential diagnosis and treatment.
27. Angina and its complications-paratonsillitis and paratonsillar abscesses,
28. Differential diagnostics of lacunar angina with pharyngeal diphtheria.



29. Pharyngeal abscess. Symptoms, diagnostics, treatment.
30. Acute secondary tonsillitis /in infectious diseases and diseases of the blood system. Diagnostics and treatment.
31. Chronic pharyngitis, forms. The importance of professional factors in the development of the disease. Diagnostics, treatment.
32. Chronic tonsillitis, forms, choice of treatment.
33. Principles of treatment of the chronic tonsillitis.
34. Temporary classification of tonsillitis.
35. Hyperplasia/ hypertrophy / Palatine tonsils, nasopharyngeal tonsils.
36. Injuries, foreign bodies of the pharynx: symptoms, emergency care.
37. Juvenile nasopharyngeal angiofibroma. Diagnostics, treatment.
38. Benign and malignant tumors of the pharynx. Diagnostics, treatment.
39. Clinical anatomy of larynx. Age-related anatomical and topographic features of the larynx.
40. Clinical physiology of larynx.
41. Structural features of the mucous membrane of larynx, blood supply, innervation, especially of the lymphatic system of larynx.
42. Clinical anatomy of trachea, bronchi.
43. Paresis and paralysis of the larynx muscles. Symptoms, diagnostics and treatment.
44. Acute laryngitis. Symptoms, diagnostics, treatment.
45. Symptoms, diagnostics and treatment of foreign bodies in larynx, trachea, bronchi.
46. Laryngeal injuries open and closed, Symptoms, diagnostics and treatment.
47. Laryngotracheitis in children as a syndrome of acute respiratory viral infections.
48. Laryngeal angina. Phlegmonous laryngitis.
49. Foreign bodies in larynx, trachea, bronchi. Symptoms, diagnostics, treatment.
50. Laryngeal stenosis, acute and chronic. Methods of diagnostics and treatment,
51. Benign tumors of larynx-fibroma, papilloma, angioma.

52. Laryngeal papillomatosis in children and adults.
53. Larynx cancer: clinical features, diagnostics, treatment.
54. Tuberculosis of larynx: clinical features, diagnostics, treatment.
55. Scleroma of the upper respiratory tract. Epidemiology, diagnostics, treatment.
56. Occupational diseases of larynx, their prevention.
57. The importance of preventive examinations.
57. Clinical anatomy of external, middle ear.
58. The role of the middle ear in the mechanism of sound conduction.
59. Importance of topographical, anatomical and age-related features of external and middle ear in the development of ear disease and its complications.
60. Clinical anatomy, physiology of the cochlea.
61. Pathways and centers of the auditory analyzer.
62. Physiology of the ear: sound conduction and perception, theories of hearing /Helmholtz, Bekesy/
63. Clinical anatomy, physiology of semicircular canals.
64. Anatomy, physiology of the otolith apparatus of the vestibule. Clinical physiology of the vestibular analyzer.
66. Characteristics of vestibular nystagmus, the basic laws of nystagmus.
67. Otitis externa: boils, inflammation of the auditory canal, erysipelas, eczema.
68. Foreign bodies in the ear, diagnostics, treatment.
69. Damage to external and middle ear, diagnostics and treatment, first aid for them. Barotrauma of the ear.
70. Acute and chronic chutar, exudative and adhesive otitis media. Symptoms, diagnostics and treatment.
71. Features of the course of acute otitis media in childhood in infectious diseases.
72. Chronic purulent otitis media: forms, methods, diagnostics, treatment.
73. Otogenic meningitis. Symptoms, diagnostics and treatment.
74. Otogenic brain abscesses, clinical forms, diagnostics and treatment.
75. Sepsis. Symptoms, diagnostics and treatment,
76. Thrombophlebitis of sigmoid sinus. Symptoms, diagnostics and treatment.

77. Principles of treatment of otogenic intracranial complications and sepsis,
78. Cochlear neuritis. Symptoms, diagnostics and treatment.
79. Otosclerosis, Symptoms, diagnostics and treatment.
80. Meniere's disease, Symptoms, diagnostics and treatment.
81. Clinical forms of labyrinths / classification/. Diagnostics, treatment.
82. Deafness, deaf-mutism. Identification of early forms of hearing loss.
83. Tuning fork examination of hearing and audiometry in the diagnosis of hearing impairment.

**Criteria for the assessment of "credit" at the end of the semester:**

1. No missed lectures and practical classes
2. Active work in the classroom.
3. Preparation of a presentation and reports on the proposed topic
4. Passes test credit

**Criteria for evaluation of oral response, colloquia**

"grade 5" is given to student if he/she gives the correct answers to the discussed questions with difference in depth and completeness of disclosure of a subject, is able to draw conclusions and generalizations to give the reasoned answers which are logical and consecutive.

"grade 4" is assigned to a student if he/she is on the issues under discussion provides the right answers, is the depth and completeness of the topic, knows how to make conclusions and generalizations, but allowed one or two mistakes in the answers.

"grade 3" is given to a student if he/she gives answers to the discussed questions which insufficiently open it, there is no logical construction of the answer, admits several mistakes.

"grade 2" is given to a student if he gives answers to the discussed questions, which show that he does not own the material of the topic, can not give reasoned answers, serious errors in the content of the answer are allowed.

### **Evaluation tools for current certification**

**Control tests** are designed for students studying the course "Otorhinolaryngology". Tests are necessary for both the control of knowledge in the process of the current interim certification, and for the assessment of knowledge, the result of which can be set off.

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### **Examples of test tasks.**

001. Choane is:

- a) posterior sections of the upper nasal passage
- b) a hole from the nasal cavity into the nasopharynx
- c) rear sections of the lower nasal passage
- d) rear sections of the common nasal passage

Correct answer: b

002. The outflow of blood from the external nose flows in:

- a) ocular vein
- b) anterior facial vein
- c) thyroid vein
- d) lingual vein

Correct answer: b

003. Glabella is:

- a) point above the front nose
- b) transition zone of the nose root to the eyebrows
- c) the area of the nose
- d) area of the front protruding part of the chin

Correct answer: b

004. Coultler is part of the nasal cavity wall:

- a) upper
- b) lower
- c) lateral
- d) medial

Correct answer: g

005. Thickness of the perforated lamina of the ethmoid bone:

- (a) 1 mm
- b) 2 - 3 mm
- C) 4 - 5 mm
- g) 5 - 6 mm

Correct answer: b

006. Nasal conchae are located on the wall of the nasal cavity:

- ( a) upper

- b) lower
- C) lateral
- d) medial

Correct answer: b

007. The composition of the outer wall of the nasal cavity includes:

- (a) nasal bone
- b) frontal, parietal bones
- C) main bone
- d) Palatine bone

Correct answer: a

008. The contents of the upper wall of nasal cavity does not include:

- a) frontal bone
- b) palatine bone
- c) nasal bone
- d) main bone

Correct answer: b

009. there are nasal conchae in the nasal cavity:

- a) upper, lower, middle
- b) upper, lower, lateral
- c) only upper, lower
- d) medial, lateral

Correct answer: a

010. With anterior rhinoscopy you can often examine:

- a) only the lower nasal shell
- b) only the middle nasal shell
- c) upper nasal shell

d) lower and middle nasal conchae

Correct answer: c

011. The Jacobson vestigial organ in the nasal cavity is located:

a) on the lower wall

b) on the nasal septum

c) in the middle nasal shell

d) average nasal passage

Correct answer: b

012. The newborn has:

a) two nasal conchae

b) three nasal conchae

c) four nasal conchae

d) five nasal conchae

Correct answer: b

013. The nasolacrimal canal opens into the:

a) upper bow

b) middle nasal meatus

c) lower nasal passage

d) general nasal passage

Correct answer: b

014. The middle nasal passage opens into:

a) all paranasal sinuses

b) tear duct

c) anterior sinuses

d) posterior cells of the ethmoid labyrinth

Correct answer: b

015. The upper nasal passage opens into:

- a) frontal sinus
- b) posterior ethmoid cells, the main sinus
- c) all cells of the grid maze
- d) tear duct

Correct answer: b

016. The Kisselbach area in the nasal cavity is:

- a) anteroinferior part of the nasal septum
- b) the upper part of the nasal septum
- c) the mucous membrane of the lower nasal shell
- d) the mucous membrane of the middle nasal shell

Correct answer: a

017. The lower nasal passage opens into:

- a) maxillary sinus
- b) frontal sinus
- c) rear cells of a trellised labyrinth
- d) nasolacrimal canal

Correct answer: g

018. The main role in the air warming in nasal cavity plays:

- a) bone
- b) cartilage tissue
- c) cavernous tissue
- d) mucous glands

Correct answer: c

019. A feature of the nasal mucosa structure is:



- a) presence of goblet cells
- b) presence of mucous glands
- c) presence of cavernous plexuses in the submucosal layer
- d) presence of atrial fibrillation

Correct answer: b

020. The upper resonators do not include:

- a) nose and sinuses
- b) pharynx and the vestibule of the larynx
- c) lining space of the larynx
- d) skull cavity

Correct answer: b

021. Molecules of odorous substances are called:

- a) opsonins
- b) derivatory
- c) andorfine
- d) the otoconia

Correct answer: b

022. Diaphanoscopy is:

- a) identification of different temperature areas
- b) x-ray examination method
- c) illumination of the sinuses with a light bulb
- d) ultrasound examination

Correct answer: b

023. The main functions of the nose do not include:

- a) respiratory
- b) flavoring

- c) olfactory
- d) protective

Correct answer: b

024. Nasal breathing in newborns is mainly goes out through:

- a) upper bow
- b) middle nasal meatus
- c) lower nasal passage
- d) General nasal passage

Correct answer: g

025. The main flow of inhaled air in the nasal cavity passes through the nasal passage:

- a) upper
- b) medium into the
- c) lower
- d) general

Correct answer: d

026. Parosmia is:

- a) decreased sense of smell
- b) no sense of smell
- c) perverted sense of smell
- d) olfactory hallucinations

Correct answer: b

027. Cacosmia is:

- a) decreased sense of smell
- b) no sense of smell
- c) perverted sense of smell

d a sensation of bad smell

Correct answer: d

028. The nose and its paranasal sinuses are supplied with blood from:

- a) external and internal carotid artery systems
- b) the system of the vertebral artery
- c) lingual artery systems
- d) upper thyroid artery

Correct answer: a

029. Lymph from anterior nasal cavity is removed to the lymph nodes:

- a) para-pharyngeal
- b) submandibular
- c) anterior cervical
- d) deep neck

Correct answer: b

030. Motor innervation of the nasal muscles is carried out:

- a) lingual nerve
- b) trigeminal nerve
- c) facial nerve
- d) vagus nerve

Correct answer: b

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION

Federal state autonomous educational institution

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SCHOOL OF BIOMEDICINE

**GLOSSARY**

on the discipline «Otolaryngology»

Specialty – 31.05.01 General medicine (specialty level)

Vladivostok

2018

**Abscess** is a cavity filled with pus and delimited from the surrounding tissues.

**Adenoids** (sin. adenoid degeneration, adenoid vegetation) - hypertrophied nasopharyngeal amygdala, causing difficulty in nasal breathing, hearing loss and other disorders.

**Angina** (sin.: throat toad) - an acute general infectious disease characterized by inflammation of the lymphadenoid tissue of the pharynx, manifested by pain in the throat and General intoxication.

**Anosmia**-lack of smell.

**Antritis** - inflammation of the cavity of the mastoid process, accompanied by osteomyelitis of the walls of the paranasal cells.

**Asphyxia** (SYN.: suffocation) - a pathological condition caused by acute or subacute hypoxia and hypercapnia and manifested by severe disorders of the nervous system, breathing and blood circulation.

**Audiology** is a section of otorhinolaryngology that studies hearing and its disorders in physical, physiological, medical, psychological and social aspects.

**Autophony** (SYN.: tympanophony) - enhanced perception of own voice due to the pathological process in the auditory tube.

**Aphonia** - absence of voice sonority with preservation of the whispered speech.

**Aerotitis** is an inflammation of the middle ear caused by barotrauma when flying in an airplane.

**Barotitis** is an inflammation of the middle ear that occurs as a result of a sharp fluctuation in atmospheric pressure, characterized by pain, noise and ringing in the

ears, hearing loss by the type of disturbance of sound conduction, hemorrhage into the tympanic cavity, ruptures of the tympanic membrane.

**Sinusitis** (sin.: maxillitis, maxillary sinusitis) - inflammation of the mucous membrane of the maxillary sinus.

**S. Catarrhal** - sinusitis with the formation of serous or mucous exudate in the sinus cavity.

**S. Purulent** - sinusitis with accumulation of purulent exudate in the sinus cavity.

**S. Acute** - catarrhal or purulent sinusitis manifested by chills, fever, pain in the forehead and sinus, unilateral abundant discharge from the nose, difficulty breathing, hyperemia and swelling of the mucous membrane.

**Hyperemia**-redness.

**Hyposmia** - reduced sensitivity of the olfactory analyzer.

**Deafness** - the complete absence of hearing or a sharp degree of his declining making perception of speech impossible.

**Larynx** - respiratory and voice, located at the level of IV-VI cervical vertebrae, between the pharynx and trachea, consisting of cartilage, ligaments and muscles, causing their movement and tension of the vocal folds and mucosa. Dysphagia is a common name for swallowing disorders.

**Labyrinthitis** (sin.: internal otitis ) is an inflammation of the inner ear.

**Labyrinthopathy** is a common name for diseases of the inner ear, characterized by dystrophic changes in its nerve elements (for example, as a result of pathological changes in the vascular system of the labyrinth, metabolic disorders) and manifested by hearing impairment and vestibular disorders.

**Mastoiditis** is inflammation of the mucous membrane of the cells and bone tissue of the mastoid process of the bone.

**Mesotympanitis** - purulent inflammation of the middle and lower parts of the tympanic cavity, manifested by a decrease in hearing, mucopurulent discharge from the ear, Central perforation of the taut part of the tympanic membrane, sometimes the growth of granulation tissue and the formation of polyps.

**Meniere syndrome** - vascular functional disorders of the inner ear and changes in the system of endo- and perilymph as a result of various pathological processes characterized by dizziness of the rotational type, accompanied by nausea, vomiting, hearing loss, spontaneous nystagmus, imbalance, noise in the ear; attacks can last from several minutes to several hours and are accompanied by pallor, profuse sweating, tachycardia, tachypnea.

**Myringitis** - inflammation of the tympanic membrane.

**Otalgia** - pain in the ear and external auditory canal in the absence of visible pathological changes in them.

**Otitis** - inflammation of any part of an ear.

**O. External** - otitis media, in which the tissues of the external auditory canal and the auricle are affected.

**O. Middle** - ear infection in which the mucous membrane of the cavities of the middle ear.

**Otolaryngologist** - a specialist doctor who has received training in the diagnosis, treatment and prevention of diseases of the ear, nose, paranasal sinuses, pharynx and larynx.

**Otomycosis** is a disease caused by the development of various types of mold fungi on the walls of the external auditory canal.

**Otoneurology-** (SYN.: otorinologologia) - section of neurology and otorhinolaryngology studying the signs of lesion of the vestibular, auditory and olfactory analyzers as well as disturbances of motor innervation of the larynx, pharynx and soft palate that occurs in diseases and injuries of the brain, in order to clarify his defeat.

**Otorhinolaryngology** is a field of clinical medicine that studies etiology, pathogenesis, clinical course of diseases of the ear, nose, paranasal sinuses, pharynx and larynx and develops methods of diagnosis, treatment and prevention of these diseases.

**Otosclerosis** - (SYN.: otodystrophy, otospongiosis) - a disease of the hearing organ, due to the focal pathological process in the bone maze, often leading to the fixation of the base of the stirrup in the window of the vestibule, manifested by progressive, usually bilateral, hearing loss and noise in the ears.

**Pansinusitis** - inflammation of all the paranasal sinuses.

**Paracentesis** - incision of the tympanic membrane to provide the outflow of pus in acute purulent otitis media.

**Puncture** - perforation of the body wall or cavity with a hollow needle or trocar; performed for diagnostic or therapeutic purposes.

**Rhinosinusitis** - combined inflammation of the mucous membrane of the nasal cavity and paranasal sinuses.

**Rhinosinusopathy** is an allergic disease manifested by attacks of rhinitis, swelling of the mucous membrane and accumulation of fluid in the paranasal sinuses.

**Sepsis** is a pathological condition caused by continuous or periodic blood flow of microorganisms from the source of purulent inflammation, characterized by a



mismatch of severe General disorders to local changes and often the formation of foci of purulent inflammation in various organs and tissues.

**Symptom** - a sign of a pathological condition or disease.

**Syndrome** - a set of symptoms united by a common pathogenesis.

**Sinusitis** (SYN.: paranasal sinusitis) - inflammation of the mucous membrane of one or more sinuses.

**Auditory tube** (SYN.: Eustachian tube, drum-pharyngeal)-bone-cartilaginous canal connecting the tympanic cavity with the nasal part of the pharynx.

**The auditory canal** is an external bone-cartilaginous channel lined with skin and going from the ear to the tympanic cavity; it is part of the outer ear, conducts air vibrations to the tympanic membrane.

**Hearing aid** - a set of measures to improve hearing with the loss of it, including the selection of the hearing aid, training and practicing in the use of it.

**Surdology** is a section of otorhinolaryngology that studies the etiology, pathogenesis and symptoms of various forms of hearing loss and deafness, developing methods for their diagnosis, treatment and prevention.

**Sphenoiditis** - inflammation of the mucous membrane of the sphenoid sinus; acute sphenoiditis usually occurs as a consequence of acute rhinitis, chronic sphenoiditis often accompanies inflammation of the posterior cells of the lattice labyrinth.

**Tympanoplasty** is a plastic of the sound-conducting apparatus of the middle ear, damaged in chronic purulent or adhesive otitis media, in order to improve hearing.

**Tympanosclerosis** (SYN.: pseudovesicles, sclerotic) - growth of connective tissue in some sectors of the middle ear with subsequent hyalinosis, often with

calcification and ossification; residual phenomenon of the transferred otitis media leading to conductive hearing loss.

**Tonsillitis** - inflammation of the tonsils.

**Tonsillotomy** is a surgical operation of partial removal of palatine tonsils.

**Tonsillectomy** is a surgical operation of complete removal of the tonsils together with a connective tissue capsule.

**Tracheitis** - inflammation of the tracheal mucosa.

**Tracheobronchitis** - inflammation of the mucous membrane of the trachea and bronchi.

**Tracheotomy** - operation of tracheal dissection (throat) for the purpose of endotracheal and endobronchial diagnostic and therapeutic procedures followed by wound closure.

**Trachea** (sin.: respiratory throat) - the organ of the respiratory apparatus, which is a breathing tube lined with mucous membrane; begins from the larynx and gives rise to the main bronchi; refers to the lower respiratory tract.

**Tubootitis** (SYN.: eustachia, salpingooforit) - inflammation of the mucous membrane of the Eustachian (auditory) tube.

**Hearing loss** (SYN.: bradyacusia) - the hearing impaired, at which stored speech perception.

**Earwax** is a product of secretion of the sulfuric glands located in the external auditory canal. Ear noise-noise in his ear.

**Pharyngitis** - inflammation of the mucous membrane and lymphoid tissue of the pharynx.

**Phonasthenia** - dysphonia or aphonia in the absence of laryngoscopically determined changes in the larynx, resulting from excessive load of the apparatus of voice formation, for example, singers, teachers.

**Phonation** - see voice formation.

**Phoniatry** - section of otorhinolaryngology, dedicated to the diagnostics, treatment and prevention of disorders of the vocal apparatus.

**Phonopedia vocal** - a method of treatment of the larynx diseases accompanied by disorders of the singing voice; based on the use of exercises to train the respiratory, articulation and voice-forming system.

**Frontitis** - inflammation of the mucous membrane of the frontal sinus.

**Epiglottitis** is an inflammation of the mucous membrane (often lymphoid) of the nasal and oral parts of the pharynx.

**The attic disease** - chronic otitis media, characterized by lesions not only the mucosa but also bone walls above tympanics space cavities granulation and cholesteatoma.

**Etmoiditis** - inflammation of the mucous membrane cells of the ethmoid sinus.