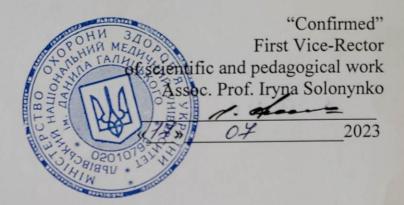
DANYLO HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY

Department of Surgical Dentistry and Maxillofacial Surgery



CURRICULUM OF THE EDUCATIONAL DISCIPLINE

(type of the discipline - mandatory)

MC 29. Surgical Dentistry

training of specialists of the second (master's) level of higher education
Sphere of Knowledge 22 «Healthcare»
Specialty 221 «Dentistry»
faculty, year: Dentistry, III

Discussed and approved at educational-methodical meeting of the department of surgical dentistry and maxillofacial surgery

Protocol № 4

Dated from «13» 06 / 2023

Head of Chair,

prof. Yan Vares

Approved

by the Profile Methodical Commission on stomatological disciplines

Protocol № 🚣

Dated from « 16 202 202 202

Head of the Profile

Methodical Commission

prof. Yan Vares

1/1

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Discussed and recommended for approval at the interdepartmental meeting of specialists of the single specialty departments
<u>In dental disciplines</u>
""2022, protocol No

DEVELOPED AND CONTRIBUTED: Lviv national medical university named after Danylo Halytskyi

INTRODUCTION

Curriculum for Surgical Dentistry composed

in accordance with the Standard of Higher Education for the second level of higher education (Master's Degree)

Sphere of Knowledge 22 "Healthcare"

Specialty 221 "Dentistry"

Educational Program for the second level of higher education (Master's Degree) in specialty 221 "Dentistry"

Description of the discipline (abstract). The discipline involves the study of surgical dentistry in its main sections: "Propedeutics of surgical dentistry and MFD", "Inflammatory diseases of MFA", "Oncology of MFA", "Traumatology of MFA", "Reconstructive-Restorative Surgery of MFA", with emphasis on the study of etiology, pathogenesis, clinics, diagnostics, emergency treatment and prophylaxis of the main and most widespread diseases of MFA.

The main focus of the program is on the formation and development of students' skills in collecting anamnesis, conducting the examination and differential diagnosis of diseases of the MFA with a variety of clinical course and their complications. In the course of this program, modern approaches to the diagnosis are taught in practice, the principles of treatment and prophylaxis are studied on the basis of evidence-based medicine. Furthermore, students are introduced to the range of urgent states in practical surgical dentistry. Students are also involved into the diagnostic and treatment process of in- and out- patients under the guidance of assistants and associate professors of the department. Students also look into a wide scope of therapeutic and prophylactic measures, which are most often applied in dental surgical practice.

The study of surgical dentistry in theory and practice, contributes to the formation of a holistic view of the structure and functioning of organs of MFA, deepening of theoretical and practical training, acquisition of professional practical skills for further independent medical activity.

Structure of the	Number of credits, hours,including				Year of study/	Test type
discipline	Total	In	class	Self-	semester	
		Lecturesh ours	Ptactical hours	study		
Name of the discipline: Surgical Dentistry Number of content modules: 2	7 credits / 210 h	16	89	105	III year (V, VI semester)	credit
		Per sen	nester			
Content module 1	2,5 credits / 75 h	8	28	39	V semester	credit
Content module 2	4,5 credits / 135 h	8	61	66	VI semester	credit

The subject of the study of the discipline is the pathological processes of MFA, which relate to the sphere of competence of surgical dentistry and maxillofacial surgery, their clinical course, the main diagnostic and therapeutic manipulations used in the practice of a surgical dentist.

Interdisciplinary connections: therapeutic dentistry, paediatric dentistry, orthopedic stomatology, normal anatomy, histology, normal physiology, pathologic physiology, topographical anatomy and operative surgery, microbiology, biochemistry, pharmacology, internal diseases, endocrinology, skin and venereal, nervous diseases, otorhinolaryngology, ophthalmology, medicine of extreme conditions.

1. Purpose and tasks of the discipline

- **1.1. The purpose of teaching** the discipline (surgical dentistry) is to provide a comprehensive and highly-specialized training of a dentist, which involves mastering the theory and practice of all sections of surgical dentistry and basics of MFD, from organization of surgical department of dental clinic and maxillofacial hospital to the ability of providing urgent care in extreme conditions and qualified surgical dental and reconstructive-restoration assistance in MFD.
 - **1.2. The main tasks of the study** of surgical dentistry are to educate a professional surgical dentist

who is able to provide a thorough examination of the patient, diagnose the main symptoms and syndromes of MFA pathologies, to substantiate and formulate the preliminary diagnosis; to analyze the results of the examination and conduct differential diagnosis, to formulate a clinical diagnosis of major diseases, to identify the manifestations of somatic diseases in the oral cavity, to define the principles of integrated treatment in the clinic of surgical dentistry, to identify various clinical variants and complications of the most common diseases of the MFA, to be aware of the measures of primary and secondary prevention the most common surgical dental diseases.

By the end of the course the students will know about:

- •Peculiarities of examination of MFD patients, involvement of adjacent specialists in the examination.
- Principles of deontology and medical ethics in surgical dentistry and MFD.
- Basic methods of general and local anesthesia, sedation in the practice of a surgical dentist (indications, contraindications, peculiarities of conducting).
- Tooth extraction operation. Modern techniques for removing teeth.
- Diseases of teeth eruption (diagnosis, treatment).
- General and local complications in the practice of surgical dentistry and MFD. Cardiopulmonary resuscitation.
- Inflammatory processes of hard tissues in MFD. Periodontitis, periostitis, osteomyelitis (diagnosis, treatment).
- Inflammatory processes of soft tissues in MFD. Abscesses, phlegmons, lymphadenitis, furuncles, carbuncles, and pelvic inflammation (diagnosis, treatment).
- Odontogenic sinusitis. Modern methods of diagnosis and treatment. Management of oro-antral communications.
- Specific inflammatory diseases of MFA. Actinomycosis, tuberculosis, syphilis, diphtheria, HIV (diagnosis and treatment).
- Dysfunction of the temporomandibular joint. Inflammatory and destructive processes of TMJ. Modern methods of diagnosis and treatment.
- Inflammatory and reactive-dystrophic diseases of the salivary glands. Calculous salivary gland disease (diagnosis and treatment).
- Complications of inflammatory processes of MFD (sepsis, mediastinitis, brain abscess, cystic sinus thrombosis, etc.). Diagnosis and treatment.

By the end of the course the students will be able:

- To collect the history and conduct a general examination of the patient for the specified pathology of MFA.
- To draw up a plan and conduct a more specific examination for the identified pathology of MFA.
- To plan all required additional check-ups and be able to interpret their results.
- To fill in the relevant medical documentation.
- To perform a diagnostic puncture of the inflammatory center of the MFD.
- To collect the inflammatory exudate for the antibiotic susceptibility test (study of the nature of the microflora and its antibiotic susceptibility).
- To collect the material from the wound surface for cytological examination (imprint, swab) and for further smear production on the specimen glass.
- To prescribe an individual scheme of premedication, depending on the psycho-somatic state of the patient, the nature and extent of surgical intervention.
- To demonstrate the techniques of preoperative preparation of the surgeon's hands by modern methods.
- To perform a phantom-based technique for antiseptic preparation of the surgical site.
- To make a plan for comprehensive screening and treatment for AIDS patients.
- To perform a phantom-based technique of topical anesthesia.
- To perform a phantom-based technique of infiltration anesthesia.
- To perform a phantom- basedtechnique of mandibular anesthesia.
- To perform a phantom- based technique of torusal anesthesia.
- To perform a phantom-based technique of mental anesthesia.
- To perform a phantom- based technique of lingual nerve block.
- To perform a phantom- based technique of buccal anesthesia.
- To perform a phantom-based technique of canine anesthesia.
- To perform a phantom- based technique of palatal anesthesia.
- To perform a phantom-based technique of tuberal anesthesia.
- To perform a phantom- based technique of infraorbital anesthesia.
- To perform a phantom-based technique of conductive anesthesia.
- To remove certain groups of teeth on the upper and lower jaws (phantom).
- To perform atypical tooth extraction as in case of pericoronitis (phantom).

- To open the subperiosteal abscess (phantom).
- To close oro-antral communication (phantom).
- To perform radical sinusotomy (phantom).
- To perform sequestrectomy (phantom).
- To perform different stages of the operation to open an abscess and phlegmon of various anatomical and topographic areas of the MFA (using the phantom).
- Drain the wound.
- To plan a comprehensive treatment of patients with these pathologies.
- To diagnose local and general complications in the practice of a surgical dentist.
- To perform cardiopulmonary resuscitation (indirect heart massage and artificial respiration) (using the phantom).
- Assist in urgent conditions in the practice of MFD according to the corresponding algorithms.

demonstrate:

- ability to abstract thinking, analysis and synthesis.
- the ability to learn and be up-to-date.
- knowledge and understanding of the subject area and understanding of professional activity.
- ability to apply knowledge in practical situations.
- skills in using information and communication technologies.
- ability to search, process and analyze information from various sources.
- the ability to identify, pose and solve problems.
- the ability to choose a communication strategy.
- ability to work in a team.
- interpersonal skills.
- the ability to act on the basis of ethical considerations (motives), safety orientation.
- knowledge of the moral and deontological principles of a medical specialist and the principles of professional subordination.
- the ability to evaluate and ensure the quality of performed works.
- the ability to act socially responsibly and civically.

1.3 Competence and course results.

In accordance with the requirements of the Standard of Higher Education, the discipline "Surgical Dentistry" provides students with the acquisition of competences:

- Integral (the ability to apply acquired general and professional competences to solve complex tasks of a dentist's professional activity and practical problems in the field of health care in the relevant position, the scope of which is provided by defined lists of syndromes and symptoms of diseases, dental diseases, physiological conditions and somatic diseases, which require special tactics of patient management, emergency conditions, laboratory and instrumental research, medical and dental manipulations; and/or implementation of innovations, the ability to solve complex problems in the field of health care in the specialty "Dentistry" in professional activity or in the process of study, which involves research or innovation).
- General (ability to abstract thinking, analysis and synthesis; ability to learn and to be trained in accordance with the newest educational tools; ability to apply knowledge in practical situations; skills of using information and communication technologies; ability to search, process and analyze information from different sources; ability to identify, set and solve the problem; the ability to choose a communication strategy; the ability to work in a team; interpersonal skills; the ability to follow the labour safety regulations; the ability to evaluate and provide high quality results).
- Special (professional, subject) (collection of medical information about the patient (history); evaluation of results of laboratory and instrumental research; clinical diagnostics of a dental disease; diagnosis of urgent conditions; identification of the nature and treatment principles of dental diseases; tactics of dealing with dental patients with somatic pathology; performing the range of medical and dental manipulations; treatment of major dental diseases; dealing with medical documentation).

Detailing competencies in the NQF descriptor in the form of "Competency matrix":

Marking

NQF -National Qualifications Framework;

GC- general competencies;

GLO- general learning outcomes;

SC - special (professional, subject) competencies;

- SLO- special (professional, subject) learning outcomes;
- N- normative type of educational activity within the specialty;
- S- selective educational activity.

General competencies (GC) according to the requirements of the NQF:

- 1. Ability to abstract thinking, analysis and synthesis.
- 2. Knowledge and understanding of the subject area and understanding of professional activity.
- 3. Ability to apply knowledge in practice.
- 4. Ability to communicate in the state language both orally and in writing.
- 5. Ability to communicate in English.
- 6. Skills in the use of information and communication technologies.
- 7. Ability to search process and analyze information from various sources.
- 8. Ability to adapt and act in a new situation.
- 9. Ability to identify, pose and solve problems.
- 10. Ability to be critical and self-critical.
- 11. Ability to work in a team.
- 12. The desire to preserve the environment.
- 13. The ability to act socially responsibly and consciously.
- 14. The ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.
- 15. Ability to preserve and increase moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology, use different types and forms of motor activities for active recreation and a healthy lifestyle.

Special (professional, subject) competencies (SC)according to the requirements of the National Qualifications Framework (NQF):

- 1. Ability to collect medical information about the patient and analyze clinical data.
- 2. Ability to interpret the results of laboratory and instrumental research.
- 3. Ability to diagnose: determine the preliminary, clinical, final, concomitant diagnosis, emergencies.
- 4. Ability to plan and implement measures for the prevention of diseases of organs and tissues of the oral cavity and maxillofacial area.
- 5. Ability to design the process of providing medical care: to determine approaches, plan, types and principles of treatment of diseases of organs and tissues of the oral cavity and maxillofacial area.
- 6. Ability to determine the rational mode of work, rest, diet in patients in the treatment of diseases of organs and tissues of the oral cavity and maxillofacial area.
- 7. Ability to determine the tactics of management of patients with diseases of organs and tissues of the oral cavity and maxillofacial area with concomitant somatic diseases.
 - 8. Ability to perform medical and dental manipulations.
 - 9. Ability to treat major diseases of organs and tissues of the oral cavity and maxillofacial area.
 - 10. Ability to organize and conduct medical and evacuation measures.
 - 11. Ability to determine tactics, methods and provide emergency medical care.
 - 12. Ability to organize and conduct screening examinations in dentistry.
- 13. Ability to assess the impact of the environment on the health of the population (individual, family, population).
 - 14. Ability to maintain regulatory medical records.
 - 15. Processing of state, social and medical information.
- 16. Ability to organize and conduct rehabilitation measures and care for patients with diseases of the oral cavity and MFA.
 - 17. Ability to legally support their own professional activities.
 - 18. Ability to provide home care according to the protocols of tactical medicine.

Detailing competencies in accordance with the NQF descriptor in the form of "Competency matrix":

Competency matrix of the educational component Surgical dentistry

Program competencies	manufacturing medical practice from Surgical Dentistry MC 60
General competencies	
GC 1 Ability to abstract thinking, analysis and synthesis.	+
GC 2 Knowledge and understanding of the subject area and understanding of	
professional activity.	+
GC 3 Ability to apply knowledge in practice.	+
GC 4 Ability to communicate in the state language both orally and in writing.	+
GC 5 Ability to communicate in English.	+
GC 6 Skills in the use of information and communication technologies.	+
GC 7 Ability to search process and analyze information from various sources.	+
GC 8 Ability to adapt and act in a new situation.	+
GC 9 Ability to identify, pose and solve problems.	+
GC 10 Ability to be critical and self-critical.	+
GC 11 Ability to work in a team.	+
GC 12The desire to preserve the environment.	+
GC 13The ability to act socially responsibly and consciously.	+
GC 14The ability to exercise their rights and responsibilities as a member of society,	T
to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.	+
GC 15Ability to preserve and increase moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology, use different types and forms of motor activities for active recreation and a healthy lifestyle. Special (professional)competencies	
SC 1 Ability to collect medical information about the patient and analyze clinical	+
data.	
SC 2 Ability to interpret the results of laboratory and instrumental research.	+
SC 3 Ability to diagnose: determine the preliminary, clinical, final, concomitant	+
diagnosis, emergencies. SC 4 Ability to plan and implement measures for the prevention of diseases of	
	+
organs and tissues of the oral cavity and maxillofacial area.	
SC 5 Ability to design the process of providing medical care: to determine	
approaches, plan, types and principles of treatment of diseases of organs and tissues	+
of the oral cavity and maxillofacial area. SC 6 Ability to determine the rational mode of work, rest, diet in patients in the	
treatment of diseases of organs and tissues of the oral cavity and maxillofacial area.	+
SC 7 Ability to determine the tactics of management of patients with diseases of	
organs and tissues of the oral cavity and maxillofacial area with concomitant somatic	
diseases.	+
SC 8Ability to perform medical and dental manipulations.	1
	+
SC 9Ability to treat major diseases of organs and tissues of the oral cavity and maxillofacial area.	+
	1
SC 10Ability to organize and conduct medical and evacuation measures.	+
SC 11Ability to determine tactics, methods and provide emergency medical care.	+
SC 12Ability to organize and conduct screening examinations in dentistry.	+
SC 13Ability to assess the impact of the environment on the health of the population (individual, family, population).	+
SC 14Ability to maintain regulatory medical records.	+
SC 15Processing of state, social and medical information.	+
SC 16 Ability to organize and conduct rehabilitation measures and care for patients with diseases of the oral cavity and MFA.	+
SC 17Ability to legally support their own professional activities.	+

+

Competency matrix

№	Competence	Knowledge	Abilities	Communication	-
					and Responsibility
	general com	netencies			Responsibility
1.	Abstract thinking, analysis and synthesizing; the	+	+		+
1.	ability to learn and to be trained in accordance	1	'		1
	with the latest educational tools.	+		+	+
2.	Knowledge and understanding of the subject area				
	and understanding of the profession.	+	+		+
3.	Ability to apply knowledge in practical				
	situations.	+	+	+	+
4.	Ability to communicate in the state language				
	both verbally and in writing; Ability to	+	+	+	
	communicate in a second language.				
5.	Skills of using information and communication	+	+	+	+
	technologies.	丁		Т	T
6.	Ability to search, process and analyze	+	+	+	+
	information from various sources.	'	'	'	'
7.	Ability to adapt and act in an unfamiliar	+	+	+	+
	situations; the ability to work autonomously.		+		+
8.	Ability to set, identify and solve problems.		+		+
9.	Ability to choose a communication strategy.			+	+
10.	Ability to work in a team.			+	+
11.	Interpersonal skills.			+	+
12.	Ability to act on the basis of ethical	+	+	+	+
12	considerations (motives).				
13.	Skills for safe operation (following the labour	+	+	+	+
1.4	safety regulations).				
14.	Ability to assess and ensure the quality of work performed.	+	+		+
15.	Ability (and desire) to follow the				
15.	environmentally friendly approach to work.	+	+	+	+
16.	Ability to act in a socially responsible and civic				
conscious manner.			+	+	+
	special (professional, su	ubiect) com	petencies		
1.	Collection of medical information on the				
	patient's condition.	+	+	+	+
2.	Evaluation of the results of laboratory and				
	instrumental research.	+			+
3.	Establishment of a clinical diagnosis of dental		_	1	
	disease.	+	+	+	+
4.	Diagnosis of urgent conditions.	+	+	+	+
5.	Planning and conducting preventive measures	+	+	+	+
	for dental diseases.	1	'	'	1
6.	Determination of the nature and principles of	+	+	+	+
	treatment of dental diseases.				'
7.	Determination of the recommended mode of				
	work, rest and diet in treatment of dental	+	+	+	
	diseases.				
8.	Determination of the management tactics in				
	dealing with dental patient with somatic	+	+	+	+
9.	pathology. Execution of medical and dental manipulations.	1	1	1	
10.	Conduct treatment of major dental diseases.	+	+	+	+
10.	Conduct treatment of major dental diseases.	+	+	+	+

11.	Organization of medical and evacuation measures.	+	+	+	+
12.	Definition of tactics and provision of emergency medical care.	+	+	+	+
13.	Organization and conducting of dental medical examination of persons subject to dispensary supervision.	+	+	+	+
14.	Assessment of the environmental impact on the health of the population (individual, family, communal health).	+			+
15.	Maintaining medical records.	+	+	+	+
16.	Work with information sources of the state level, of social and medical origin.		+	+	+

<u>Learning outcomes</u>
<u>Integrative learning outcomes</u>, formation of which is facilitated by the discipline:

Program learning outcomes			
Code of result of the learning outcome	The content of the learning outcome	Reference to the competency matrix code	
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2	Identify and identify the leading clinical symptoms and syndromes (according to list 1 of educational and professional program – EPP); according to standard methods, using preliminary data of the patient's anamnesis, data of the patient's examination, knowledge about the person, his organs and systems, to establish a probable nosological or syndromic preliminary clinical diagnosis of dental disease (according to list 2 of EPP).	PRE1	
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2	Collect information about the general condition of the patient, evaluate the psychomotor and physical development of the patient, the condition of the organs of the maxillofacial area, based on the results of laboratory and instrumental studies to assess information about the diagnosis (according to list 5 of EPP).	PRE 2	
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2	Prescribe and analyze additional (mandatory and optional) examination methods (laboratory, radiological, functional and / or instrumental) according to the list 5of EPP, patients with diseases of organs and tissues of the oral cavity and maxillofacial region for differential diagnosis of diseases (according to the list 2 of EPP).	PRE 3	
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2	Determine the final clinical diagnosis in accordance with the relevant ethical and legal norms, by making an informed decision and logical analysis of the obtained subjective and objective data of clinical, additional examination, differential diagnosis under the supervision of a supervising doctor in a medical institution (according to list 2.1 of EPP).	PRE 4	
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2	Establish a diagnosis of emergencies under any circumstances (at home, on the street, in a medical institution), in an emergency, martial law, lack of information and limited time (according to list 4 of EPP).	PRE 5	
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3	Plan and implement measures to prevent dental diseases among the population to prevent the spread of dental diseases.	PRE 6	
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3	Analyze the epidemiological situation and carry out measures of mass and individual, general and local medicament and non-medicament prevention of dental diseases.	PRE 7	
Kn1, Kn2, Skl1, Skl2,	Determine the approach, plan, type and principle of	PRE 8	

Com1, Com2, Aut1, Aut2	treatment of dental disease (according to list 2 of EPP) by making an informed decision according to existing algorithms and standard schemes.	
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2	Determine the nature of work, rest and the necessary diet in the treatment of dental diseases (according to list 2 of EPP) on the basis of preliminary or final clinical diagnosis by making an informed decision according to existing algorithms and standard schemes.	PRE 9
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2	Determine the tactics of treatment of the dental patient with somatic pathology (according to list 3 of EPP) by making the decision according to existing algorithms and standard schemes.	PRE 10
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2	Carry out treatment of major dental diseases according to existing algorithms and standard schemes under the supervision of a doctor-manager in a medical institution (according to list 2.1 of EPP).	PRE 11
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3	Organize medical and evacuation measures among the population, servicemen, in emergency situations, including martial law, during the detailed stages of medical evacuation, taking into account the existing system of medical and evacuation support.	PRE 12
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2	Determine the tactics of emergency medical care, using the recommended algorithms, under any circumstances on the basis of a diagnosis of emergency in a limited time (according to list 4 of EPP).	PRE 13
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3	Analyze and evaluate government, social and medical information using standard approaches and computer information technologies.	PRE 14
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3	Assess the impact of the environment on the health of the population in a medical institution by standard methods.	PRE 15
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3	Form goals and determine the structure of personal activity based on the result of the analysis of certain social and personal needs.	PRE 16
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3	Adhere to a healthy lifestyle, use the techniques of self-regulation and self-control.	PRE 17
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3	To be aware of and guided in their activities by civil rights, freedoms and responsibilities, to raise the general cultural level.	PRE 18
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2	Adhere to the requirements of ethics, bioethics and deontology in professional activities.	PRE 19
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3	Organize the necessary level of individual safety (personal and carers) in case of typical dangerous situations in the individual field of activity.	PRE 20
Kn1, Kn2, Skl1, c2, Com1, Com2, Aut1, Aut2	Perform medical manipulations on the basis of preliminary and / or final clinical diagnosis (according to lists 2, 2.1 of EPP) for different segments of the population and in different conditions (according to list 6 of EPP).	PRE 21
Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2	Perform medical dental manipulations on the basis of preliminary and / or final clinical diagnosis (according to lists 2, 2.1 of EPP) for different segments of the population and in different conditions (according to list 7 of EPP).	PRE 22

Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2	Perform manipulations of emergency medical care, using standard schemes, under any circumstances on the basis of a diagnosis of emergency (according to list 4 of EPP) in a limited time (according to lists 6, 7 of EPP).	PRE 23
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Normative and variational content of the course, formulated in the terms of learning outcomes

	Learning outcomes in cognitive sphere					
SLO 1	Identify major clinical symptoms and syndromes; using standard	GC 1, GC 2, GC 3, GC 4,				
	methods and data of the patient's history, patient's examination data,	GC 5, GC 6, GC 7, GC 8,				
	knowledge of the person, their organs and systems, to establish a	GC 9, GC 11, GC 12, GC				
	preliminary nosological or syndromic diagnosis of the dental	14, GC 16; SC 1, SC 3, SC				
	disease.	4, SC 15.				
SLO 2	To collect information on the general condition of the patient, to	GC 1, GC 2, GC 3, GC 4,				
	assess the psychomotor and physical development of the patient, to	GC 5, GC 6, GC 7, GC 8,				
	assess the maxillofacial area, evaluate the information collected	GC 9, GC 11, GC 12, GC				
	from the results of laboratory and instrumental test and provide	14, GC 16; SC 1, SC 2, SC				
	further diagnosis.	3, SC 4, SC 5, SC 6, SC 7,				
	-	SC 8, SC 11, SC 12, SC				
		14, SC 15, SC 16.				
SLO 3	Appoint and analyze a laboratory, functional and / or instrumental	GC 1, GC 2, GC 3, GC 4,				
	examination of a patient for differential diagnostics of the disease.	GC 7, GC 8, GC 9, GC 10,				
		GC 11, GC 12, GC 13; GC				
		14;				
		SC 1, SC 2, SC 15.				
SLO 4	Establish a final clinical diagnosis, following the relevant ethical	GC 1, GC 2, GC 3, GC 4,				
	and legal norms, by making a reasonable decision and logical	GC 5, GC 6, GC 7, GC 8,				
	analysis of the received subjective and objective data of the clinical	GC 9, GC 10, GC 14, GC				
	and additional examination, differential diagnosis under supervision	16;SC 1, SC 3, SC 4, SC				
	of the head doctor in the conditions of the medical institution.	15.				
SLO 5	Establish a diagnosis of urgent conditions under any circumstances	GC 1, GC 2, GC 3, GC 4,				
	(at home, on the street, at a medical institution), in an emergency, in	GC 5, GC 6, GC 7, GC 8,				
	the conditions of martial law, lack of information and limited time.	GC 9, GC 10, GC 11, GC				
		13, GC 14, GC 15, GC 16;				
		SC 1, SC 4, SC 15.				
SLO 6	Plan and implement preventive measures for spread of dental	GC 1, GC 2, GC 3, GC 4,				
	diseases among the population.	GC 5, GC 6, GC 7, GC 8,				
		GC 9, GC 10, GC 11, GC				
		12, GC 13, GC 14, GC 15,				
		GC 16; SC 1, SC 5, SC 13,				
		SC 14, SC 15, SC 16.				
SLO 7	Analyze the epidemiological condition and carry out measures of	GC 1, GC 2, GC 3, GC 4,				
	mass and individual, general and local, medical and non-	GC 5, GC 6, GC 8, GC 9,				
	pharmacological prevention of dental diseases.	GC 10, GC 11, GC 12, GC				
		13; GC 14; GC 15, GC 16;				
		SC 1, SC 5, SC 13, SC 14,				
~~~		SC 15, SC 16.				
SLO 8	Make the treatment plan of a dental disease by making reasonable	GC 1, GC 2, GC 3, GC 5,				
	decisions (following a well-grounded approach) based on existing	GC 6, GC 7, GC 8, GC 12,				
	algorithms and standard schemes.	GC 13, GC 14; GC 15, GC				
GT C C		16; SC 1, SC 6, SC 15.				
SLO 9	Determine and recommend the working regime, rest and necessary	GC 1, GC 2, GC 3, GC 4,				
	diet for treatment of dental diseases on the basis of a preliminary or	GC 5, GC 6, GC 7, GC 8,				
	final clinical diagnosis by making reasonable decisions (following a	GC 9, GC 10, GC 11, GC				
	well-grounded approach) based on existing algorithms and standard	12, GC 13, GC 14, GC 15,				
GT C 10	schemes.	GC 16; SC 1, SC 7, SC 15.				
SLO 10	Determine the tactics of managing dental patients with somatic	GC 1, GC 2, GC 3, GC 4,				

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	pathology by making reasonable decisions based on existing algorithms and standard schemes.	GC 5, GC 6, GC 7, GC 8, GC 10, GC 12, GC 13, GC 14, GC 16; SC 1, SC 7, SC 8, SC 15.
SLO 11	Manage the treatment of major dental diseases by existing algorithms and standard schemes under the supervision of a head doctor in the conditions of a medical institution.	GC 1, GC 2, GC 3, GC 4, GC 7, GC 8, GC 9, GC 10, GC 11, GC 12, GC 13, GC 14, GC 15, GC 16; SC 1, SC 9, SC 10, SC 15.
SLO 12	Organize medical and evacuation measures among the civil and military population, in conditions of emergency, including martial law, in the course of the deployed stages of medical evacuation, according to the available medical and evacuation equipment.	GC 1, GC 2, GC 3, GC 4, GC 5, GC 6, GC 7, GC 8, GC 9, GC 10, GC 11, GC 12, GC 13, GC 14, GC 15, GC 16; SC 1, SC 11, SC 15.
SLO 13	Determine the tactics of providing emergency medical care using recommended algorithms, under all circumstances, based on the evaluation of urgent condition (emergency diagnosis) in a limited time.	GC 1, GC 2, GC 3, GC 4, GC 5, GC 6, GC 7, GC 8, GC 9, GC 10, GC 11, GC 12, GC 13, GC 14, GC 15, GC 16; SC 1, SC 12, SC 15.
SLO 14	Analyze and evaluate public, social and medical information using standard approaches and computer information technologies.	GC 1, GC 2, GC 3, GC 4, GC 5, GC 6, GC 8, GC 10, GC 11, GC 13, GC 14, GC 15, GC 16; SC 13, SC 15, SC 16.
SLO 15	Assess the environmental impact on the health of the population in the conditions of a medical institution according to standard methods.	GC 1, GC 2, GC 3, GC 5, GC 6, GC 7, GC 10, GC 11, GC 13, GC 14, GC 15, GC 16; SC 13, SC 14, SC 15, SC 16.
	Learning outcomes in the emotional sphere.	
GLO 1	Set goals and determine the structure of personal activity based on the results of analysis of certain social and personal needs.	GC 1, GC 2, GC 3, GC 4, GC 5, GC 6, GC 7, GC 8, GC 9, GC 10, GC 11, GC 12, GC 13, GC 14, GC 15, GC 16; SC 1, SC 5, SC 6, SC 7, SC 8, SC 9, SC 10, SC 11, SC 12, SC 13, SC 14.
GLO 2	Maintain a healthy lifestyle, use self-regulation and self-control techniques.	GC 1, GC 2, GC 3, GC 5, GC 6, GC 11, GC 12, GC 13, GC 14, GC 15, GC 16; SC 5, SC 14.
GLO 3	Be aware of and guided in their activities by civil rights, freedoms and duties, and raising the general cultural level.	GC 4, GC 5, GC 6, GC 9, GC 10, GC 11, GC 12, GC 13, GC 14, GC 15, GC 16; SC 5, SC 13, SC 14, SC 16.
GLO4	Adhere to ethical, bioethical and deontology requirements in their professional activities.	GC 1, GC 2, GC 3, GC 4, GC 9, GC 10, GC 11, GC 12, GC 13, GC 14, GC 15, GC 16; SC 1, SC 5, SC 7, SC 9, SC 10, SC 11, SC 12, SC 13, SC 14, SC 15, SC 16.
GLO 5	Organize the necessary level of individual safety (own and those cared for) in case of emergency in the individual sphere of activity.	GC 1, GC 2, GC 3, GC 5, GC 9, GC 10, GC 11, GC 12, GC 13, GC 14, GC 15,

		GC 16; SC 1, SC 5, SC 6,					
		SC 9, SC 10, SC 11, SC					
		12, SC 13, SC 14, SC 15.					
	Learning outcomes in the psychomotor sphere.						
SLO 16	Perform medical manipulations based on a preliminary and / or	GC 1, GC 2, GC 3, GC 7,					
	final clinical diagnosis.	GC 9, GC 10, GC 11, GC					
		13. GC 14, GC 15; SC 9,					
		SC 10, SC 11, SC 12.					
SLO 17	Perform dental manipulations based on a preliminary and / or final	GC 1, GC 2, GC 5, GC 6,					
	clinical diagnosis.	GC 8, GC 9, GC 10, GC					
		11, GC 12, GC 13, GC 14,					
		GC 15; SC 9, SC 10, SC					
		11, SC 12.					
SLO 18	Perform emergency care manipulations using standardized	GC 1, GC 2, GC 3, GC 4,					
	procedures, under all circumstances, based on emergency diagnosis.	GC 5, GC 6, GC 8, GC 9,					
		GC 10, GC 11, GC 13, GC					
		14, GC 15, GC 16; SC 9,					
		SC 10, SC 11, SC 12.					

#### Matrix of correspondence of the competencies defined by the Standard to descriptors of NQF

	T	T	Π	
	Knowelge	Skills	Communicati	Autonomy and
			on	responsibility
	Kn 1 Specialized	Skl 1 Solving		
	conceptual	complex	Com 1 Clear	Aut 1 Making
	knowledge	problems and	and	decisions in
	acquired in the	issues that	unambiguous	difficult and
	process of	require	communicatio	unpredictable
	learning and / or	updating and	n of one's own	conditions,
	professional	integrating	conclusions,	which requires
	activity at the	knowledge,	as well as the	the application
	level of the latest	often in	knowledge	of new
	achievements,	conditions of	and	approaches
	which are the	incomplete /	explanations	and forecasting
Classification of competencies by	basis for original	insufficient	that	Aut 2
Classification of competencies by	thinking and	information	substantiate	Responsibility
NQF	innovation, in	and	them, to	for the
	particular in the	conflicting	specialists and	development of
	context of	requirements	non-	professional
	research work		specialists, in	knowledge and
		Skl 2	particular to	practices,
	Kn 2	Conducting	students	assessment of
	Critical	research and /		strategic
	understanding of	or innovation	Com 2 Use of	development of
	problems in	activities	foreign	the team
	teaching and / or		languages in	Aut 3 Ability to
	professional		professional	further study,
	activities and at		activities	which is largely
	the border of			autonomous
	subject areas			and
•		•	•	'

				independent			
General competencies							
1. Ability to abstract thinking, analysis and synthesis.	Kn1 Kn 2	Skl 1		Aut 1			
2. Knowledge and understanding of	KII Z						
the subject area and understanding of	Kn 1	Skl 1	Com1	Aut 2			
professional activity.							
3. Ability to apply knowledge in practice.	Kn1	Sc 1	Com 1	Aut 1			
4. Ability to communicate in the state							
language both orally and in writing.			Com 1, Com 2				
5. Ability to communicate in English.			Com 1				
6. Skills in the use of information and communication technologies.	Kn1		Com 1, Com 2	Aut 2			
7. Ability to search process and							
analyze information from various	Kn1		Com 1	Aut 2			
sources. 8. Ability to adapt and act in a new							
situation.		Skl 1		Aut 1			
9. Ability to identify, pose and solve	Kn1	Skl 1	Com 1	Aut 1			
problems. 10. Ability to be critical and self-			Com 1	1100 1			
critical.	Kn2			Aut 1			
11. Ability to work in a team.	Kn2		Com 1, Com 2	Aut 2			
12. The desire to preserve the	Kn1	Skl 1		Aut 1			
environment.  13. The ability to act socially							
responsibly and consciously.	Kn1			Aut 1			
14. The ability to exercise their rights							
and responsibilities as a member of society, to realize the values of civil							
(free democratic) society and the need	Kn1	Skl 1	Com 1	Aut 3			
for its sustainable development, the							
rule of law, human and civil rights and freedoms in Ukraine.							
15. Ability to preserve and increase							
moral, cultural, scientific values and							
achievements of society based on understanding the history and							
patterns of development of the subject							
area, its place in the general system of	Kn1	Skl 2		Aut 3			
knowledge about nature and society and in the development of society,							
technology and technology, use							
different types and forms of motor							
activities for active recreation and a healthy lifestyle.							
Special (professional) competencies							

1. Ability to collect medical information about the patient and analyze clinical data.	Kn2	Skl 1	Com 1, Com 2	
2. Ability to interpret the results of laboratory and instrumental research.	Kn1	Skl 1		Aut 1
3. Ability to diagnose: determine the preliminary, clinical, final, concomitant diagnosis, emergencies.	Kn 1	Skl 1		Aut 1
4. Ability to plan and implement measures for the prevention of diseases of organs and tissues of the	Kn 2	Skl 1	Com 1	Aut 1
oral cavity and maxillofacial area.  5. Ability to design the process of providing medical care: to determine approaches, plan, types and principles of treatment of diseases of organs and tissues of the oral cavity and maxillofacial area.	Kn 1	Skl 1		Aut 1
6. Ability to determine the rational mode of work, rest, diet in patients in the treatment of diseases of organs and tissues of the oral cavity and maxillofacial area.	Kn 1, Kn 2	Skl 1	Com 1	
7. Ability to determine the tactics of management of patients with diseases of organs and tissues of the oral cavity and maxillofacial area with concomitant somatic diseases.		Skl 1		Aut 1, Aut 2
8. Ability to perform medical and dental manipulations.	Kn 1	Skl 1		Aut 1
9. Ability to treat major diseases of organs and tissues of the oral cavity and maxillofacial area.	Kn 1	Skl 1	Com 1	Aut 1, Aut 2
10. Ability to organize and conduct medical and evacuation measures.	Kn 1, Kn 2	Skl 1	Com 1	Aut 1, Aut 2
11. Ability to determine tactics, methods and provide emergency medical care.	Kn 1, Kn 2	Skl 1		Aut 1, Aut 2
12. Ability to organize and conduct screening examinations in dentistry.	Kn 1	Skl 2	Com 1	Aut 2
13. Ability to assess the impact of the environment on the health of the population (individual, family, population).	Kn 2	Skl 2		
14. Ability to maintain regulatory medical records.			Com 1	Aut 1
15. Processing of state, social and medical information.	Kn 2		Com 1, Com 2	Aut 1, Aut 2
16. Ability to organize and conduct rehabilitation measures and care for patients with diseases of the oral cavity and MFA.	Kn 1	Skl 1	Com 1	
17. Ability to legally support their own professional activities.	Kn 1		Com 1	Aut 2
18. Ability to provide home care according to the protocols of tactical medicine.	Kn 2	Skl 1	Com 1	Aut 1, Aut 2

Matrix of compliance with the learning outcomes and competencies defined by the Standard Program learning Competencies General competencies Special (professional) competencies GC 12 GC 13 GC 14 GC 15 SC 1 GC 10 SC 9 SC 10 SC 11 SC 11 SC 12 GC 111 6 D D 9 D D 2298 D 9 SC 4 SC 5 SC 6 SC 6 SC 7 SC 2 SC 3 SC8 PRE + PRE PRE PRE + + + + + + + PRE + + PRE PRE PRE + + PRE + + + + + PRE 10 PRE + + + + + + 11 PRE + 12 PRE 13 PRE + + + + 14 PRE 15 PRE + + + 16 PRE 17 PRE 18 PRE + + + + + + + 19 PRE + 20 PRE + + + + 21 PRE 22

PRE 23 **Learning outcomes for the discipline:** professional training of the dentist, which provides for mastering of the theory and practice of such sections as "Propedeutics of surgical dentistry and MFD" and "Inflammatory processes of MFD"; the ability to conduct an examination of a patient, to diagnose the main symptoms of inflammatory diseases of the MFA, to substantiate and formulate the preliminary diagnosis; to analyze the results of the examination and to conduct differential diagnosis, to formulate a clinical diagnosis, to spot and identify manifestations of somatic diseases in the oral cavity, to define the principles of integrated treatment, to identify different clinical variants and complications, to be aware of the measures of primary and secondary prevention of surgical dental diseases, the study of which is provided by content modules #1 and #2.

#### 2. Information volume of the academic discipline.

7 ECTS credits are allocated for studying the academic discipline of 210 hours.

#### During discipline studying, a student has to:

#### **Content module #1:**

**Explain and interpret** the principles of deontology and medical ethics in surgical dentistry and MFD, the method of examination of MFD patients, involvement of adjacent specialists in the examination.

**Analyze** the indications and contraindications, especially the application of the basic methods of general and local anesthesia, sedation in the practice of a surgical dentist.

**Make a plan and conduct** a patient's examination with MFA pathology, refer to an additional research (if needed) and be able to interpret their results, plan for comprehensive examination and treatment of AIDS patients.

**Collect** anamnesis and examination results of the patient with the specified MFA pathology, fill in the relevant medical documentation; carry out cardiopulmonary resuscitation.

**Collect** the material for additional research (microbiological, cytological, histological); preventive measures and emergency care.

**Assign** an individual scheme of premedication, depending on the psycho-somatic state of the patient, the nature and extent of surgical intervention, medical therapy in the postoperative period, to provide appropriate recommendations.

**Demonstrate** the techniques of preoperative preparation of the surgeon's hands by modern techniques, the technique of antiseptic treatment of the surgical site, techniques of local anesthesia on the upper and lower jaws; operations for the removal of individual groups of teeth on the upper and lower jaw, pericoronarectomy, atypical tooth extraction.

Topic №1. Organization of surgical dental care. Acquaintance with the structure of the surgical department of the dental clinic and the department of maxillofacial surgery of the Clinical Hospital. Equipment, documentation for the outpatient dental office and department. Method of examination of the maxillofacial area and neck. Aseptic and antiseptic in MFS. Specific and non-specific resistance of the oral cavity. Prevention of socially significant infections.

Surgical dental services

Types of surgical dental services: outpatient and inpatient (urgent and elective). Peculiarities of assistance in emergency situations.

Arrangement of work and equipment of surgical department (office) in dental clinic, maxillo-facial department of the hospital, operating and dressing rooms.

Special equipment, devices and instruments to examine patients and perform dental procedures.

Asepsis and antisepsis during surgery on the face and in the mouth. Preparation for oral surgery. Processing of surgical field.

Sterilization of instruments, dressing and suture materials (silk, catgut, synthetic thread). Preparing of surgeon's hands.

Peculiarities of services for outpatients and inpatients with inflammatory diseases, injuries and after planned surgical interventions in the maxillo-facial area, their nutrition.

Medical documentation in the surgical department (office) of dental clinic and maxillo-facial department of a hospital. Performance measure of dental surgeon.

Indications for hospitalization of patients with disorders of the maxillo-facial area, peculiarities of their examination and rehabilitation.

Hospital-acquired infection in dental clinic and maxillo-facial hospital, ways of transmission. Protection of patients and medical staff from hospital infections, viral hepatitis, HIV, and others.

Examination of surgical dental patient

Peculiarities of examination of patients with diseases of dento-facial system, injuries, inflammation, benign, malignant tumours and mass, congenital and acquired defects, deformities of maxillo-facial area.

The value of personal contact of doctor with patient. Emotional factors associated with facial diseases, injuries and defects and applied treatment. Deontology and medical ethics in dental and maxillo-facial surgery.

Collecting subjective data from the patient:

Present complaints.

Medical history: the disease and its dynamics, previous treatment.

Past history: hereditary diseases, Anamnesis Morbi and comorbidity, bad habits - drugs, alcohol, smoking; heredity, allergological anamnesis.

Physical examination: general condition, consciousness. Examination of organs and systems at the hospital.

Examination of the maxillo-facial area. Inspection of face. Palpation. Examination of organs and soft tissues of the mouth, dental examination. General clinical, laboratory and special techniques. Examination of functions of motor and sensory nerves. Examination of salivary glands and their ducts, temporomandibular joint, lymph system of face and neck. Establishing the nature and size of defects and deformities of facial and mouth tissues, condition of adjacent tissues. Assessment of the extent of anatomical, functional and aesthetic defects.

Objective examination methods with modern diagnostic equipment. Rentgenologic: X-ray, tomography, panoramic radiography and pantomography. Application of artificial contrast. Computed tomography and magnetic resonance imaging, radioisotope and ultrasound diagnostics, distant and contact thermography. Morphological methods: cytology of prints, scrapes, puncture material; histological examination of biopsy material. Methods of functional diagnostics: rheo-, polaro- and electromyography, electroodontodiagnosis. The use of computers in diagnosis: X-ray interpretation, operation planning, health outcomes.

Range of examination of patients with disorders of the maxillo-facial area during treatment in outpatient and inpatient departments, participation of allied professionals in examination.

Aseptic and antiseptic for operations on the face and in the oral cavity. Preparation of the oral cavity for surgery. Operational field cleaning. Sterilization of instruments and dressing material, material for suturing (silk, catgut, threads of synthetic materials). Preparing the surgeon's hands for surgery. Features of care for ambulatory and inpatient patients with inflammatory diseases, injuries and after planned surgical interventions in the maxillofacial area, their nutrition. Intraperitoneal infection in the dental clinic and maxillo-facial inpatient, the ways of infection transmission. Protecting patients and medical staff from hospital infection, viral hepatitis, HIV infection and others.

#### The list of questions to be studied by the student at the lesson:

- 1. Principles of the organization of dental care to the population of Ukraine.
- 2. Organization of the operation of the surgical department (cabinet) of the dental clinic.
- 3. Features of the organization and provision of special surgical dental care.
- 4. Sanitary-hygienic requirements to the surgical department (cabinet) of the dental clinic and inpatient department.
- 5. Equipment, medical documentation of the surgical office (department).
- 6. Subjective examination of a surgical dentist (complaints, history of the disease, history of life).
- 7. Method of examination of the general condition of a surgical dentist.
- 8. Method of local examination (extraoral and intraoperative) of a surgical dentist.
- 9. Additional methods of examination (electrodontometry, radiography, morphological, microbiological, functional research).
- 10. Indications for hospitalization of dental surgical patients.
- 11. Concept of asepsis, disinfection, sterilization, their methods.
- 12. General principles and methods of asepsis.
- 13. Preparation of the surgical dental department (cabinet) of the clinic and hospital.
- 14. Preparation of the surgeon's hands.
- 15. Preparation of the operational field.
- 16. Methods of cleaning of the instruments and dressing material (disinfection and sterilization), their storage.
- 17. General principles and methods of antiseptics.
- 18. Ways of transmission of infection in a dental surgical office.
- 19. AIDS: etiology and pathogenesis. Features of the clinical flow. Diagnosis, treatment.
- 20. Prevention of HIV infection.

Topic №2. Pain, its components, leading paths of pain. Classification of anxiety, types, methods, indications and contraindications. General anxiety. Premedication. Neuroleptanalgesia.

Objectives and types of anaesthesia in dentistry. Organization and maintenance of anaesthesia and intensive care services in the dental clinic and hospital. Pain, its types, components of pain, its value for the body. Response to pain, surgical injury.

#### The list of questions to be studied by the student at the lesson:

- 1. The concept of pain, its types. Causes Modern theories of pain.
- 2. The mechanism of perception and transmission of pain signal. Function of the endogenous pain-free system. Interaction of nociceptive and antinociceptive systems of an organism.
  - 3. Components of human pain response. Factors that affect the sensation of pain.
  - 4. History of the development of anesthesia.
- 5. Purpose and tasks of medical preoperative preparation of the patient. Premedication, its components. Schemes of premedication. Modern methods of assessing the effectiveness of premedication.
  - 6. Potentiation of local anesthesia. Neuroleptanalgesia
- 7. Combination anesthesia. Ataralgezia Audio anesthesia. Acupuncture. Transcranial electroanalgesia. Percutaneous electroneurostimulation. Hypnotic effect.
- 8. General anesthesia in operations in the maxillofacial area. Narcotic disease, its types. Indications and contraindications to its conduct.
  - 9. Preparation of the patient for narcosis.
  - 10. Advantages and disadvantages of narcosis. Modern Classifications of narcosis risks.
  - 11. Pharmacological preparations used for inhalation and non-inhalation narcosis. Their features.
  - 12. Stages of narcosis.
  - 13. Features of anesthesia in dentistry, maxillofacial surgery.
  - 14. Complications of anesthesia. Follow-up standards for patients after narcosis.

### Topic №3. Local anesthetics, their properties, side effects. Classification. Indications and contraindications to local anesthesia. Application, infiltration anesthesia.

Developmental milestones of local anaesthesia. The contribution of local scientists. Types of local anaesthesia. Non-injection methods of local anaesthesia: chemical, physical, physico-chemical, and electric anaesthesia. Injection methods. Needle-free injection using cartridge syringes.

Clinical and pharmacological characteristics of local anaesthetics used in dentistry: novocaine, trimecaine, lidocaine, tetracaine, bumecaine, ultracain etc. Application of vasoconstrictors for local anaesthesia. Correlation of efficiency of anaesthesia and general condition of the patient, the use of alcohol and other harmful factors.

Application anaesthesia. Techniques, indications and contraindications, possible complications.

Infiltration (terminal) anaesthesia for surgery on soft tissues and alveolar processes. Indications and contraindications for administration.

Anaesthesia in surgical interventions on the maxilla. Conduction anaesthesia. Technique of blocking the II branch of the trigeminal nerve at the round foramen, near infraorbital foramen, maxillary tuber, pterygopalatine and incisive foramen. Intra- and extraoral techniques. Indications and contraindications for administration. Mistakes, complications, their prevention and treatment.

Anaesthesia in surgical interventions on the mandible. Regional (nerve block) anaesthesia. Technique of blocking the III branch of the trigeminal nerve at the oval foramen, near mandibular canal (mandibular and torusal anaesthesia), near the mental foramen. Intra- and extraoral techniques of anaesthesia. Indications and contraindications for administration. Mistakes, complications, their prevention and treatment.

The combination of conduction and infiltration anaesthesia in surgical interventions on the maxillo-facial area and tooth extractions. Contraindications for administration of local anaesthesia. subperiostal anaesthesia, indications, technique, complications. Intraligamentary anaesthesia, indications, technique, advantages and disadvantages and complications. Intrapulpal anaesthesia, indications, technique, complications. Intraosseous anaesthesia, indications, technique, complications.

Mistakes and complications of local anaesthesia: introduction of tissue toxins, damage of nerves, blood vessels, and muscles, contagion, and others. Approximation of jaws after injection. General complications: reaction of cardiovascular system and central nervous system – fainting, collapse; anaphylaxis, other allergic reactions. Providing emergency care. Premedication, its principles, objectives and action. Indications for administration. Peculiarities of administration at the clinic and hospital. Groups of drugs used for premedication and their clinical and pharmacological characteristics (analgesics, tranquilizers, antihistamines, etc.). Types of premedication applied by a dental surgeon and anaesthesiologist.

- 1. Clinical and pharmacological characteristics: anesthetics of the group of esters; anesthetics of the amide group; vasoconstrictive drugs used with anesthetics for local anesthesia.
  - 2. Separation of anesthetics by duration of action.
  - 3. Requirements to be met by anesthetics for local anesthesia.

- 4. Forms of release of anesthetics, their synonyms and maximum doses.
- 5. Rules for the use of anesthetics in ampoules, vials and carpules.
- 6. Indications and contraindications to the use of anesthetics and vasoconstrictors in the presence of concomitant pathology.
  - 7. Indications and contraindications to local anesthesia.
  - 8. Classification of local anesthesia: non-injecting Injection (infiltration, conductor).
  - 9. Advantages and disadvantages of non-injecting and infiltration anesthesia.

## Topic $N_24$ . Peripheral conductive anesthesia on the lower jaw: torusal, mandibular anesthesia. Indications, methods of conducting. Local complications, their treatment.

Anaesthesia in surgical interventions on the mandible. Regional (nerve block) anaesthesia. Technique of blocking the III branch of the trigeminal nerve at the oval foramen, near mandibular canal (mandibular and torusal anaesthesia), near the mental foramen. Intra- and extraoral techniques of anaesthesia. Indications and contraindications for administration. Mistakes, complications, their prevention and treatment.

The combination of conduction and infiltration anaesthesia in surgical interventions on the maxillo-facial area and tooth extractions. Contraindications for administration of local anaesthesia. subperiostal anaesthesia, indications, technique, complications. Intraligamentary anaesthesia, indications, technique, advantages and disadvantages and complications. Intrapulpar anaesthesia, indications, technique, complications. Intraosseous anaesthesia, indications, technique, complications.

Mistakes and complications of local anaesthesia: introduction of tissue toxins, damage of nerves, blood vessels, and muscles, contagion, and others. Approximation of jaws after injection. General complications: reaction of cardiovascular system and central nervous system – fainting, collapse; anaphylaxis, other allergic reactions. Providing emergency care. Premedication, its principles, objectives and action. Indications for administration. Peculiarities of administration at the clinic and hospital. Groups of drugs used for premedication and their clinical and pharmacological characteristics (analgesics, tranquilizers, antihistamines, etc.). Types of premedication applied by a dental surgeon and anaesthesiologist.

#### The list of questions to be studied by the student at the lesson:

- 1. Classification of conductive anesthesia on mandible.
- 2. Mandibular anesthesia: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of anesthetic administered. Clinical effect of anesthesia. Zone of anesthesia.
- 3. Torusal anesthesia: the place of the injection of the needle, the direction and depth of the needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 4. Mental anesthesia: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 5. Anesthesia of the lingual nerve: the place of the injection of the needle, the direction and depth of the needle insertion, the target point of anesthesia, the amount of anesthetic administered. Clinical effect of anesthesia. Zone of anesthesia.
- 6. Anesthetic of the buccal nerve: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of administered anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 7. Block of the motor branches of the trigeminal nerve: the place of the injection of the needle, the direction and depth of the needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 8. Local complications of anesthesia on the lower jaw, causes of their occurrence. Clinical manifestations.
  - 9. Treatment of the patient in the case of complications.

### Topic №5. Peripheral conductive anesthesia on the lower jaw: mental, cheek and language anesthesia. Indications, methods of conducting. Local complications, their treatment.

Anaesthesia in surgical interventions on the mandible. Regional (nerve block) anaesthesia. Technique of blocking the III branch of the trigeminal nerve at the oval foramen, near mandibular canal (mandibular and torusal anaesthesia), near the mental foramen. Intra- and extraoral techniques of anaesthesia. Indications and contraindications for administration. Mistakes, complications, their prevention and treatment.

The combination of conduction and infiltration anaesthesia in surgical interventions on the maxillofacial area and tooth extractions. Contraindications for administration of local anaesthesia. subperiostal anaesthesia, indications, technique, complications. Intraligamentary anaesthesia, indications, technique, advantages and disadvantages and complications. Intrapulpar anaesthesia, indications, technique, complications. Intraosseous anaesthesia, indications, technique, complications.

Mistakes and complications of local anaesthesia: introduction of tissue toxins, damage of nerves, blood vessels, and muscles, contagion, and others. Approximation of jaws after injection. General complications: reaction of cardiovascular system and central nervous system – fainting, collapse; anaphylaxis, other allergic reactions. Providing emergency care. Premedication, its principles, objectives and action. Indications for administration. Peculiarities of administration at the clinic and hospital. Groups of drugs used for premedication and their clinical and pharmacological characteristics (analgesics, tranquilizers, antihistamines, etc.). Types of premedication applied by a dental surgeon and anaesthesiologist.

#### The list of questions to be studied by the student at the lesson:

- 1. Classification of mandibular mandibular anesthesia.
- 2. Mandibular anesthesia: the place of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of anesthetic administered. Clinical effect of anesthesia. Zone of anesthesia.
- 3. Torusal anesthesia: the place of the injection of the needle, the direction and depth of the needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 4. Mental anesthesia: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 5. Anesthesia of the lingual nerve: the place of the injection of the needle, the direction and depth of the needle insertion, the target point of anesthesia, the amount of anesthetic administered. Clinical effect of anesthesia. Zone of anesthesia.
- 6. Anesthetic of the buccal nerve: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of administered anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 7. Block of the motor branches of the trigeminal nerve: the place of the injection of the needle, the direction and depth of the needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 8. Local complications of anesthesia on the lower jaw, causes of their occurrence. Clinical manifestations.
  - 9. Treatment of the patient in the case of complications.

## Topic $N_26$ . Peripheral conductive anesthesia on the upper jaw: tuberal, infraorbital anesthesia. Indications, methods of conducting. Local complications, their treatment.

Anaesthesia in surgical interventions on the maxilla. Conduction anaesthesia. Technique of blocking the II branch of the trigeminal nerve at the round foramen, near infraorbital foramen, maxillary tuber, pterygopalatine and incisive foramen. Intra- and extraoral techniques. Indications and contraindications for administration. Mistakes, complications, their prevention and treatment.

The combination of conduction and infiltration anaesthesia in surgical interventions on the maxillo-facial area and tooth extractions. Contraindications for administration of local anaesthesia. subperiostal anaesthesia, indications, technique, complications. Intraligamentary anaesthesia, indications, technique, advantages and disadvantages and complications. Intrapulpar anaesthesia, indications, technique, complications. Intraosseous anaesthesia, indications, technique, complications.

Mistakes and complications of local anaesthesia: introduction of tissue toxins, damage of nerves, blood vessels, and muscles, contagion, and others. Approximation of jaws after injection. General complications: reaction of cardiovascular system and central nervous system – fainting, collapse; anaphylaxis, other allergic reactions. Providing emergency care. Premedication, its principles, objectives and action. Indications for administration. Peculiarities of administration at the clinic and hospital. Groups of drugs used for premedication and their clinical and pharmacological characteristics (analgesics, tranquilizers, antihistamines, etc.). Types of premedication applied by a dental surgeon and anaesthesiologist.

- 1. Classification of conduction anesthesia on the upper jaw.
- 2. Infraorbital anesthesia: the place of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of administered anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 3. Tuberal anesthesia: the place of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of administered anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 4. Incisor anesthesia: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of administered anesthetic. Clinical effect of anesthesia. Zone of anesthesia.

- 5. Palatal anesthesia: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of anesthetic administered. Clinical effect of anesthesia. Zone of anesthesia.
  - 6. External methods of conducting anesthesia on the upper jaw. Indications to hold.
  - 7. Anesthesia of the upper dental plexus (pleural anesthesia).
- 8. Local complications of anesthesia on the upper jaw, causes of their occurrence. Clinical manifestations.
  - 9. Treatment of the patient in the case of complications.

### Topic $N_2$ 7. Peripheral conductive anesthesia on the upper jaw: incisor, palatal anesthesia. Indications, methods of conducting. Local complications, their treatment.

Anaesthesia in surgical interventions on the maxilla. Conduction anaesthesia. Technique of blocking the II branch of the trigeminal nerve at the round foramen, near infraorbital foramen, maxillary tuber, pterygopalatine and incisive foramen. Intra- and extraoral techniques. Indications and contraindications for administration. Mistakes, complications, their prevention and treatment.

The combination of conduction and infiltration anaesthesia in surgical interventions on the maxillo-facial area and tooth extractions. Contraindications for administration of local anaesthesia. subperiostal anaesthesia, indications, technique, complications. Intraligamentary anaesthesia, indications, technique, advantages and disadvantages and complications. Intrapulpar anaesthesia, indications, technique, complications. Intraosseous anaesthesia, indications, technique, complications.

Mistakes and complications of local anaesthesia: introduction of tissue toxins, damage of nerves, blood vessels, and muscles, contagion, and others. Approximation of jaws after injection. General complications: reaction of cardiovascular system and central nervous system – fainting, collapse; anaphylaxis, other allergic reactions. Providing emergency care. Premedication, its principles, objectives and action. Indications for administration. Peculiarities of administration at the clinic and hospital. Groups of drugs used for premedication and their clinical and pharmacological characteristics (analgesics, tranquilizers, antihistamines, etc.). Types of premedication applied by a dental surgeon and anaesthesiologist.

#### The list of questions to be studied by the student at the lesson:

- 1. Classification of conduction anesthesia on the upper jaw.
- 2. Infraorbital anesthesia: the place of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of administered anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 3. Tuberal anesthesia: the place of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of administered anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 4. Incisor anesthesia: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of administered anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 5. Palatal anesthesia: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of anesthetic administered. Clinical effect of anesthesia. Zone of anesthesia.
  - 6. External methods of conducting anesthesia on the upper jaw. Indications to hold.
  - 7. Anesthesia of the upper dental plexus (plexual anesthesia).
- 8. Local complications of anesthesia on the upper jaw, causes of their occurrence. Clinical manifestations.
  - 9. Treatment of the patient in the case of complications.

## Topic N28. Central conductive methods of anesthesia of jaws and surrounding tissues. Local complications, their treatment.

Anaesthesia in surgical interventions on the maxilla. Conduction anaesthesia. Technique of blocking the II branch of the trigeminal nerve at the round foramen, near infraorbital foramen, maxillary tuber, pterygopalatine and incisive foramen. Intra- and extraoral techniques. Indications and contraindications for administration. Mistakes, complications, their prevention and treatment.

Anaesthesia in surgical interventions on the mandible. Regional (nerve block) anaesthesia. Technique of blocking the III branch of the trigeminal nerve at the oval foramen, near mandibular canal (mandibular and torusal anaesthesia), near the mental foramen. Intra- and extraoral techniques of anaesthesia. Indications and contraindications for administration. Errors, complications, their prevention and treatment.

- 1. Classification of central conductive anesthesia.
- 2. Submalar-pterygoid way of anesthesia to the round foramen: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.

- 3. Tuberal way of anesthesia to the round foramen: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of anesthetic administered. Clinical effect of anesthesia. Zone of anesthesia.
- 4. Palatine way: needle position, direction and depth of needle insertion, target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 5. Infrazygomatic-pterygoid way of anesthesia to the oval foramen: place of the injection of the needle direction and depth of needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 6. Mandibular way of anesthesia to the oval foramen: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 7. Suprazygomatic way of anesthesia to the oval foramen: the place of the injection of the needle, direction and depth of needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 8. Local complications when conducting central conductive anesthesia causes of their occurrence. Clinical manifestations.
  - 9. Treatment of the patient in the case of complications.

## Topic $N_29$ . General complications of local anesthesia, their prevention and treatment. Cardiopulmonary resuscitation.

Emergency conditions while performing dental procedures that need urgent medical care: respiratory complications, cardiovascular, comatose, shock and other manifestations.

Principles of cardiopulmonary resuscitation. Assistance in resuscitation of a patient from a terminal condition: on the street, in a dental office, in maxillo-facial hospital. Prevention of emergency conditions in dentistry, maxillo-facial surgery (including organizational measures).

#### The list of questions to be studied by the student at the lesson:

- 1. Classification of complications of local anesthesia of the maxillofacial area (general and local, directly during and after some time after anesthesia).
  - 2. Loss of consciousness: causes, clinic, diagnosis, treatment and prevention.
  - 3. Collapse: causes, clinic, diagnosis, treatment and prevention.
  - 4. Anaphylactic shock: causes, clinic, diagnosis, treatment and prevention.
  - 5. Anesthetic and vasoconstrictor intoxication: causes, clinic, diagnosis, treatment and prevention.
  - 6. Idiosyncrazy: causes, clinic, diagnosis, treatment and prevention.
  - 7. Principles of cardio-pulmonary resuscitation in the practice of a dental surgeon.

### Topic Nolone 10. Indications and contraindications to the operation of tooth extraction. Instruments for tooth extraction. Preparation of patients with concomitant pathology for tooth extraction.

Tooth extraction. Tools for tooth extraction, their structure and operating principles. Indications and contraindications for surgical tooth extraction. Peculiarities of preparation of a patient and performance of operation in patients with alterations of the cardiovascular system, blood diseases and other systemic disorders, in pregnant women and children. Typical tooth extraction: Preparation of the surgical field. Techniques of tooth extraction taking into consideration anatomical conditions, structure and mechanism of instruments. The location and position of a doctor and patient during tooth extraction. Tools for tooth extraction. Types of forceps, elevators, their structure, operating principles, purpose. Extraction of a tooth with forceps. Distinct stages of tooth extraction with forceps. Peculiarities of extracting certain types of teeth and roots. Techniques and operating principles of various types of elevators. Wound healing after typical tooth extraction. Technique of extracting mandibular third molar with its impaction or abnormal position. Atypical tooth extraction: indications, techniques, anaesthesia, instruments. Treatment of wound after tooth extraction and care. Peculiarities of socket healing. Complications of tooth and root extraction. Penetration of a tooth into respiratory and gastrointestinal tract. Fracture and dislocation of adjacent teeth. Breaking of parts of alveolar process, fracture and dislocation of jaws. Damage to the floor of the maxillary sinus and pushing of a tooth root into it. Bleeding during tooth extraction and its prevention. Ways of treatment of such complications and their prevention. Complications after tooth extraction. Bleeding. Etiology. Measures to stop the hemorrhage from wounds of the soft tissues and bones. Surgical, pharmacological and biological methods to control postoperative bleeding. Postoperative pain in the socket. Alveolitis, causes, prevention. Treatment of other postoperative complications. Surgical intervention on the alveolar process to To prepare for orthopaedic treatment.

- 1. Basic indications before tooth extraction.
- 2. The main urgent (absolute) indications for the teeth extraction.

- 3. Relative indications to tooth extraction.
- 4. Prosthetic, aesthetic, sanation indications for the teeth extraction.
- 5. The main general and local contraindications for the teeth extraction.
- 6. Classification of instruments for tooth extraction on the lower jaw, specifity of forceps and elevators.
- 7. Classification of instruments for tooth extraction on the upper jaw, specifity of forceps and elevators.

#### Topic №11. Methods of the teeth extraction on the upper jaw. Stages of operation.

Teeth extraction. Tools for teeth extraction, their structure and operating principles. Indications and contraindications for surgical tooth extraction. Peculiarities of preparation of a patient and performance of operation in patients with alterations of the cardiovascular system, blood diseases and other systemic disorders, in pregnant women and children.

Typical tooth extraction: Preparation of the surgical field. Techniques of tooth extraction taking into consideration anatomical conditions, structure and mechanism of instruments. The location and position of a doctor and patient during tooth extraction. Tools for tooth extraction. Types of forceps, elevators, their structure, operating principles, purpose. Extraction of a tooth with forceps. Distinct stages of tooth extraction with forceps. Peculiarities of extracting certain types of teeth and roots. Techniques and operating principles of various types of elevators. Wound healing after typical tooth extraction.

#### The list of questions to be studied by the student at the lesson:

- 1. The position of the patient and doctor at the removal of the teeth on the upper jaw.
- 2. Position of the patient and the doctor at the removal of the teeth on the lower jaw.
- 3. Stages of the tooth extraction operation.
- 4. Features of removal of single-root teeth on the upper and lower jaws.
- 5. Features of removing multi-root teeth on the upper and lower jaws.
- 6. Features of removal of the upper third molars. Instruments.
- 7. Features of removing the lower third molars. Instruments.
- 8. Features of removal of roots of teeth. Instruments.
- 9. Healing the wound after tooth extraction.

#### Topic №12. Methods of the teeth extraction on the lower jaw. Stages of operation.

Teeth extraction. Tools for teeth extraction, their structure and operating principles. Indications and contraindications for surgical tooth extraction. Peculiarities of preparation of a patient and performance of operation in patients with alterations of the cardiovascular system, blood diseases and other systemic disorders, in pregnant women and children.

Typical tooth extraction: Preparation of the surgical field. Techniques of tooth extraction taking into consideration anatomical conditions, structure and mechanism of instruments. The location and position of a doctor and patient during tooth extraction. Tools for tooth extraction. Types of forceps, elevators, their structure, operating principles, purpose. Extraction of a tooth with forceps. Distinct stages of tooth extraction with forceps. Peculiarities of extracting certain types of teeth and roots. Techniques and operating principles of various types of elevators. Wound healing after typical tooth extraction.

#### The list of questions to be studied by the student at the lesson:

- 1. The position of the patient and doctor at the removal of the teeth on the upper jaw.
- 2. Position of the patient and the doctor at the removal of the teeth on the lower jaw.
- 3. Stages of the tooth extraction operation.
- 4. Features of removal of single-root teeth on the upper and lower jaws.
- 5. Features of removing multi-root teeth on the upper and lower jaws.
- 6. Features of removal of the upper third molars. Instruments.
- 7. Features of removing the lower third molars. Instruments.
- 8. Features of removal of roots of teeth. Instruments.
- 9. Healing the wound after tooth extraction.

### Topic N 13. Complications during tooth extraction: clinical picture, diagnosis, treatment and prevention.

Complications of tooth and root extraction. Penetration of a tooth into respiratory and gastrointestinal tract. Fracture and dislocation of adjacent teeth. Breaking of parts of alveolar process, fracture and dislocation of jaws. Damage to the floor of the maxillary sinus and pushing of a tooth root into it. Bleeding during tooth extraction and its prevention. Ways of treatment of such complications and their prevention. Complications after tooth extraction. Bleeding. Etiology. Measures to stop the hemorrhage from wounds of the soft tissues and bones. Surgical, pharmacological and biological methods to control postoperative bleeding. Postoperative pain in the socket. Alveolitis, causes, prevention. Treatment of other postoperative complications. Surgical intervention on the alveolar process to prepare for orthopaedic treatment.

#### The list of questions to be studied by the student at the lesson:

- 1. Early local complications that occur during tooth extraction:
- fracture of the tooth or its root;
- fracture, dislocation of the neighboring tooth;
- fracture of the part of the alveolar process;
- fracture of the tuber of the upper jaw;
- damage to soft tissues;
- pushing the tooth or its root into soft tissues;
- perforation of the bottom of the maxillary sinus;
- hit the tooth or its root in the respiratory tract.
- 2. Late local complications that occur after tooth extraction:
- bleeding from the alveolar socket;
- alveolitis- alveolar pains.

## Topic Nole 14. Retention and dystopia. Atypical tooth extraction. Stages of operation. Indications, instruments, techniques. Postoperative wound care. Final lesson "Oral Surgery Propedeutics".

Technique of extracting mandibular third molar with its impaction or abnormal position. Atypical tooth extraction: indications, techniques, anaesthesia, instruments. Treatment of wound after tooth extraction and care. Peculiarities of socket healing.

#### The list of questions to be studied by the student at the lesson:

- 1. Indications before the operation of atypical tooth extraction.
- 2. The necessary instruments for the operation of atypical tooth extraction.
- 3. Methods of atypical removal of the teeth of the upper and lower jaws.
- 4. Wound healing after the operation of atypical tooth extraction.
- 5. Local complications in the operation of the atypical tooth, causes of their occurrence, clinical manifestations, treatment and prevention.
- 6. Preparation for tooth extraction in patients with various concomitant pathologies (diseases of the cardiovascular, respiratory, endocrine systems, gastrointestinal tract, neuropsychiatric sphere, hematological, infectious diseases).
  - 7. Types of premedication before tooth extraction for patients with different concomitant pathology.

#### The list of questions that the student should study for mastering the content module 1

- 1. Organization of oral surgical care to the population of Ukraine in the polyclinical and hospital conditions.
  - 2. Stages of development of oral surgery in Ukraine. The contribution of domestic scientists.
  - 3. Asepsis and antisepsis during operations of the maxillofacial area in the polyclinic and hospital.
- 4. Aseptic and antiseptic aspects of AIDS and viral hepatitis in the polyclinical and hospital practice of oral surgeon.
  - 5. Methods of preparation of the oral surgeons hands for surgery in the polyclinic and hospital.
- 6. Immunobiological features of tissues of the maxillofacial area. The role of local immunity for odontogenic infections.
- 7. Examination of a patient in the department of oral surgery of the polyclinic and hospital. Medical documentation.
- 8. Pain, its components, leading the way. Role for the organism. The body's response to pain, the operating injury.
- 9. Medicinal substances for local anesthesia, their chemical composition, mechanism of action. Recipes.
  - 10. The methods for the production, storage and quality assessment of solutions for local anesthesia.
- 11. The prolongation of local anesthetics. Vasoconstrictor funds. Their dosage. Recipes. Intoxication with adrenaline.
  - 12. Methods of local anesthesia in oral and maxillofacial area. How to perform them.
- 13. Potential local anesthesia: the principles of sedation, the main ingredients of medicinal substances, which are part of schemes sedation, advantages and disadvantages.
- 14. Drug preparation (pretreatment) of the patient for surgery on the maxillofacial area in the conditions of policlinic and hospital. Possible complications of potential local anesthesia.
  - 15. Common complications of local anesthesia. Anaphylactic shock. Resuscitation.
- 16. Local complications of local anesthesia in oral and maxillofacial area. Their prevention, diagnosis, treatment.
  - 17. Types and features of general anesthesia during operations on the maxillofacial area in the

polyclinic and hospital. Indications and contraindications.

- 18. Pharmacological agents for anesthesia, the mechanism of their action. Neuroleptanalgesia. Indications and contraindications in oral surgery.
  - 19. General and local complications with conduction anesthesia. Prevention. Resuscitation.
- 20. Indications and contraindications for various types of local and general anesthesia during operations on the maxillofacial area in the conditions of polyclinic and hospital.
- 21. Central anesthesia during block of II branch of the trigeminal nerve. Zone of innervation, indications, technique. Prevention of complications.
- 22. Central anesthesia during block of III branch of the trigeminal nerve. The zone of innervation of the indications, technique. Prevention of complications.
  - 23. Anesthesia by the Bershe-Dubov-Uvarov. Indications and methodology.
  - 24. Anesthesia in infratemporal fossa. Tryger-sympathic blockade. Indications. Methodology.
- 25. Torusal anesthesia. The area of coverage. Indications. The method of conduction. Prevention of complications.
- 26. Extraorally method of mandibular anesthesia. The area of coverage. Indications. The method of conduction. Prevention of complications.
- 27. Finger-less way of intraoral mandibular anesthesia. The area of coverage. Indications. The method of conduction. Prevention of complications.
- 28. Finger method of intraoral mandibular anesthesia. The area of coverage. Indications. The method of conduction. Prevention of complications.
- 29. Anesthesia of buccal nerve. The types. The area of coverage. The method of conduction. Indications.
  - 30. Mental anesthesia. Zone of action, indications, technique.
- 31. Infraorbital anesthesia. The area of coverage. Indications. The method of conduction. Possible complications, its prevention and treatment.
- 32. Tuberal anesthesia. The area of coverage. Indications. The method of conduction. Possible complications, its prevention and treatment.
- 33. Anesthesia around incisor foramen. The area of coverage. Indications. The method of conduction. Possible complications, its prevention and treatment.
- 34. Plexual anesthesia. The area of coverage. Indications. The method of conduction. Prevention of complications.
  - 35. Methods of anesthesia for the removal of the lower molars.
  - 36. Methods of anesthesia for sequestrectomy in the mental part of the lower jaw.
- 37. Methods of anesthesia for the removal of the upper incisors. To prescribe 2 % solution of novocaine.
  - 38. Methods of anesthesia for the removal of the upper premolars.
  - 39. Methods of anesthesia for the surgical treatment of superficial phlegmon of MFA.
  - 40. Methods of anesthesia for the surgical treatment of a deep phlegmon of MFA and neck.
  - 41. Common complications during and after anesthesia. Prevention, care.
- 42. Preparation of a dental patient for urgent surgical intervention in the conditions of policlinic and hospital.
  - 43. Preparation of a dental patient to elective surgery in the conditions of policlinic and hospital.
  - 44. Local complications during and after the injection of anesthetic. Prevention, treatment.
  - 45. Doctor's tactics in case of wrong injection instead of anesthetic non-injectional solution.
  - 46. Fainting, collapse, shock. Clinic, the aid for dental patient in the conditions of the polyclinic.
- 47. Local complications during anesthesia in MFA: etiology, pathogenesis, clinical symptoms, aid, prevention.
- 48. Peculiarities of anesthesia during tooth extractions in patients with myocardial infarction, diabetes mellitus, cardiovascular diseases.
  - 49. Methods of anesthesia for the removal of the salivary stone.
  - 50. Methods of anesthesia for the maxillary sinus sinusotomya.
  - 51. The choice of method of anesthesia in patients with allergic status.
  - 52. Peculiarities of anesthesia in the elderly people.
  - 53. Modern anesthetic agents (anesthetics), equipment: action, advantages and disadvantages.
- 54. Modern methods of anesthesia during dental operations, the principles of further development of methods of anesthesia.
  - 55. The operation of the tooth extraction. The stages.
  - 56. Features of removal of individual groups of teeth and roots on the upper and lower jaws.
  - 57. Complications of the teeth extraction. Diagnostics, treatment.
  - 58. Instruments for typical and atypical tooth extraction, its purpose, and action.

- 59. Instruments for the removal of teeth and roots on the upper jaw. The structure and conditions of use.
- 60. Instruments for the removal of teeth and roots on the lower jaw. The structure and conditions of use.
- 61. Atypical tooth extraction. Technique. Care of postoperative wound.
- 62. The species and the healing period postextractive wound.
- 63. Atypical extraction of teeth with the retention and dystopia. Indications. The method of operation. Alveolectomy. Complications and their treatment.
  - 64. Bleeding after tooth removal: its causes, methods of stopping prophylaxis.
  - 65. Alveolitis: etiology, treatment. Wound care in the postoperative period.
  - 66. Alveolar pain: etiology, clinical flow, treatment.
  - 67. Doctor's tactics in case of perforation of the maxillary sinus floor during tooth removal.
  - 68. Doctor's tactics in case of the pushing of a tooth in the maxillary sinus.
  - 69. The specifics of the preparation of the patient with disease of the blood to remove the tooth.
  - 70. Doctor's tactics in case of pushing the tooth into the tissue of the bottom of the oral cavity.
  - 71. A tooth fracture: methods of removal: required instruments.
  - 72. Tooth extraction from a tumor in a patient with hypertension, stroke, myocardial infarction.
  - 73. Tooth extraction from a tumor in a patient with leukemia.
  - 74. Causes of fracture of the jaw during tooth removal. Doctor's tactics.
  - 75. Prevention of aspiration of teeth, fracture and dislocation of the mandible during tooth extraction.

#### **Content module 2:**

**To explain** the etiology of the inflammatory processes of solid tissues of MFA (periodontitis, perioditis, osteomyelitis), inflammatory processes of soft tissues of MFA (abscesses, phlegmons, lymphadenitis, boils, carbuncles,), odontogenic sinusitis, specific inflammatory diseases of MFA (actinomycosis, tuberculosis, syphilis, diphtheria, HIV), inflammatory and destructive processes of TMJ, inflammatory and reactive-dystrophic diseases of the salivary glands, salivary stones, complications of inflammatory processes of MFA (sepsis, mediastinitis, brain abscess, thrombosis of cavernous sinus, etc.).

**To interpret** the pathogenesis of inflammatory processes of hard tissues of MFA (periodontitis, periostitis, osteomyelitis), inflammatory processes of soft tissues of MFA (abscesses, phlegmons, lymphadenitis, boils, carbuncles, behemic inflammation), odontogenic sinusitis, specific inflammatory diseases of MFA (actinomycosis, tuberculosis, syphilis, diphtheria, HIV), inflammatory and destructive processes of TMJ, inflammatory and reactive-dystrophic diseases of the salivary glands, salivary stones, complications of inflammatory processes of MFA (sepsis, mediastinitis, brain abscess, thrombosis of caves rick sinus, etc.).

To analyze the indications and contraindications to the application of modern methods of diagnosis and treatment of inflammatory processes of solid and soft tissues of MFA, specific inflammatory diseases of MFA, inflammatory and destructive processes of TMJ, inflammatory and reactive-dystrophic diseases of the salivary glands, salivary stones, complications of inflammatory diseases processes SHLD, management of oro-antral connections.

**To develop** a comprehensive plan for the examination and treatment of patients with inflammatory diseases of the MFA, to To be able to interpret their results.

**To perform** on a phantom diagnostic puncture of the inflammatory center of the MFA, the operation of disclosing the subperiostal abscess, the operation of closing the airborne combination, the operation of radical sinusotomy, sequestration surgery, the stages of the operation - the disclosure of abscesses and phlegmon of different anatomical and topographic sites of the MFA.

**To conduct** diagnostics of complications of inflammatory processes of MFA; registration of the corresponding medical documentation.

**To assign** an individual scheme of medical treatment depending on the psycho-somatic state of the patient, the nature and extent of the surgical intervention, medication therapy in the postoperative period, provide appropriate recommendations.

**To demonstrate** the ability to perform diagnostic puncture of the inflammatory center of the MFA, the operation to open the subperiosteal abscess, the operation of closing the oro-antral connections combination, the operation of radical sinusotomy, sequestration surgery, the stages of the operation - the foramen of abscesses and phlegmons of various anatomical and topographic areas of the MFA.

Topic №1. Inflammatory processes of MFA: classification, etiology, pathogenesis, types of clinical reactions and peculiarities of the course of odontogenic inflammatory diseases. The role of immune, endocrine, reticulo-endothelial systems.

Etiology and pathogenesis of purulent-inflammatory diseases of maxillofacial localization. Classification. The significance of dental caries and dental injuries in the development and spread of inflammation. Definition of the concept of "odontogenic infection" and contemporary ideas about its

importance in the development of local general-somatic pathology.

#### The list of questions to be studied by the student at the lesson:

- 1. Microflora, which causes purulent-inflammatory processes in the maxillofacial area.
- 2. Ways of infection spreading in the maxillofacial area.
- 3. Modern classification of inflammatory diseases of the maxillofacial area:
- localization of the primary source of infection;
- in the presence of infection;
- by the type of defeat by the inflammatory process of tissues;
- on the basis of the organ or anatomical structure of the maxillofacial area;
- on a topographic anatomical sign;
- by the type of inflammatory reaction (the severity of the clinical flow);
- during the phases of the disease;
- by the kind of inflammatory exsudate.
- 4. Types of reactions and features of the clinical flow of inflammatory diseases of the maxillofacial area.
- 5. The influence of the local source of infection on the general state of the organism through the blood, lymphatic vessels, as well as the immune, endocrine, and blood coagulation systems.
- 6. The inverse influence of the organism on the center of the inflammatory process in the maxillofacial area (syndrome of mutual encumbrance).
  - 7. Odontogenic chronic sepsis.

### Topic №2. Diseases of teeth eruption. Pericoronitis: etiology, pathogenesis, clinical flow, diagnosis, treatment, complications.

Dystopia of teeth. Retention and inclination of the teeth. Difficult eruption, causes. Clinical manifestations. Indications for surgical treatment. Complications, their classification. Methods of surgical intervention in dystopia and retention of teeth. Pericoronitis: classification, clinic, diagnosis, treatment.

#### The list of questions to be studied by the student at the lesson:

- 1. The concept of "retention" and "dystopia" of the tooth, etiology, pathogenesis, classification.
- 2. Features of the clinical flow of retention and dystopia of teeth.
- 3. Treatment tactics for retention and dystopia of teeth, indications for surgical treatment.
- 4. Planning of surgical interventions at different stages of retention and dystopia of the teeth on the upper and lower jaw. Method of atypical tooth extraction.
- 5. The concept of "difficult to erupt tooth" etiopathogenesis, classification.
- 6. Pericoronitis. Clinical picture of inflammatory complications with difficult tooth erosion.
- 7. Ways of spreading infection in diseases of cutting teeth of wisdom.
- 8. Treatment of inflammatory complications that arise on the background of difficult to erupt teeth.

## Topic No3. Acute and chronic periodontitis: classification, etiology, pathogenesis. clinic, diagnostics, surgical methods of treatment, complications and prevention. Odontogenic granuloma of the face: clinical flow, diagnosis, treatment.

Classification. Acute serous and purulent periodontitis, exacerbation of chronic periodontitis. Etiology, pathogenesis, pathological anatomy, ways of spreading the infectious process. Clinic, diagnostics, differential diagnostics, surgical treatment. Chronic periodontitis. Classification. Clinical and X-ray diagnostics, differential diagnostics, surgical methods of treatment. Transactions: resection of tooth root tops, hemiosection, tooth root amputation, replantation, tooth transplantation, and others. Operation of replanting of teeth (types of operations, removal procedure and tooth treatment). Features of splicing after replantation. Indications for the operation and the technique of its implementation in different groups of teeth. Possible complications and prognosis.

- 1. Microflora, which causes purulent-inflammatory processes in the maxillofacial area.
- 2. Ways of spreading infection in periodontium.
- 3. Types of reactions and features of the clinical flow of inflammatory diseases of the maxillofacial area.
  - 4. Influence of the odontogenic source of infection on the general condition of the organism.
  - 5. Etiology and pathogenesis, classification of periodontitis.
  - 6. Diagnostics and differential diagnostics of periodontitis.
  - 7. Clinic of acute periodontitis.
  - 8. Clinical and radiological picture of chronic periodontitis.

- 9. Features of clinical flow of exacerbation of periodontitis.
- 10. Principles of treatment of acute and chronic periodontitis, prognosis and complications.
- 11. Surgical treatment of chronic periodontitis: resection of the apex of the root, coronary-radicular separation, hemisection and root amputation, tooth replantation. Indications and contraindications, method of conducting.

## Topic N24. Odontogenic periostitis of jaws (acute, chronic): etiology, pathogenesis, clinical flow, diagnosis, treatment, complications, their prevention.

Classification. acute purulent periostitis of the jaws. Pathogenetic relationship with periodontitis. Spreading of inflammatory process depending on the location of the roots of different groups of teeth. Pathological anatomy. Clinical picture. Differential diagnostics. Treatment. Indications for tooth extraction in case of acute odontogenic jaw infiltration. Chronic periostitis. Clinic, treatment.

#### The list of questions to be studied by the student at the lesson:

- 1. Microflora, which causes purulent-inflammatory processes in the maxillofacial area.
- 2. Ways of infection spreading in the maxillofacial area.
- 3. Modern classification of inflammatory diseases of the jaw bones.
- 4. Types of reactions and features of the clinical flow of inflammatory diseases of the maxillofacial area.
- 5. The influence of the local source of infection on the general state of the organism through the blood, lymphatic vessels, as well as the immune, endocrine, and blood coagulation systems.
- 6. The inverse influence of the organism on the center of the inflammatory process in the maxillofacial area (syndrome of mutual encumbrance).
  - 7. Etiology and pathogenesis, classification of jaw periostitis.
  - 8. Clinic of acute periostitis of the jaws.
  - 9. Diagnostics and differential diagnostics of acute jaw periostitis.
  - 10. Principles of treatment of acute jaw periostitis, prognosis and complications.
  - 11. Periostotomy surgery.
  - 12. Chronic disturbed jaws, classification, clinic, treatment.

## Topic №5. Acute odontogenic osteomyelitis of jaws: etiology, pathogenesis, classification. Modern theories of its origin. Clinical flow, diagnostics, treatment (surgical, medication, physiotherapeutic), complications, their prevention.

Classification. Odontogenic, contact, hematogenous. The role of microflora, nonspecific resistance, immunological status of the patient, anatomical structure of the jaws in the development of the disease. Modern concepts of etiology and pathogenesis of odontogenic osteomyelitis of jaws. Clinic and differential diagnostics of acute odontogenic osteomyelitis. Complex pathogenetic treatment: surgical, medical therapy, application of physiotherapeutic methods. Consequences and possible complications.

#### The list of questions to be studied by the student at the lesson:

- 1. Modern views on the etiology and pathogenesis of odontogenic osteomyelitis.
- 2. Classification of jaw osteomyelitis.
- 3. Clinic of acute osteomyelitis of the jaws.
- 4. Features of osteomyelitis on the upper and lower jaw.
- 5. Diagnostics and differential diagnostics of acute osteomyelitis of the jaws.
- 6. Principles of complex treatment of acute osteomyelitis of jaws, prognosis and complications.
- 7. Physiotherapeutic methods of treatment of inflammatory processes of jaw bones.
- 8. Complications of odontogenic osteomyelitis, their prevention.

## Topic №6. Chronic odontogenic osteomyelitis of the jaws: clinical flow, diagnosis, treatment, complications, their prevention. Features of leakage and treatment of osteomyelitis in patients with narcotic abuse.

Subacute and chronic osteomyelitis of the jaw. Clinical and radiological picture of its various forms (sequestering, ratifying, hyperplastic), differential diagnostics. Features of the flow on the upper and lower jaws. Primary-chronic osteomyelitis. Comprehensive treatment at different stages of development. The course of osteomyelitis of the upper and lower jaws of different origins. Treatment depending on the peculiarities of the pathogenesis of the disease. Terms and technique of sequestrant crectomy. Possible complications: resorption fracture, defect and deformity of jaws, sepsis, pneumonia, and others. Other forms of osteomyelitis: Harre, Brody, radial osteonecrosis.

- 1. Modern views on the etiology and pathogenesis of odontogenic osteomyelitis.
- 2. Classification of jaw osteomyelitis.

- 3. Features of the osteomyelitis on the upper and lower jaw.
- 4. Chronic osteomyelitis of the jaw, clinical flow.
- 5. Diagnostics and differential diagnostics of chronic osteomyelitis of jaws6. Principles of complex treatment of chronic osteomyelitis of the jaws, prognosis of the disease.
  - 7. Operation sequestrectomy.
  - 8. Physiotherapeutic methods of treatment of inflammatory processes of bones.
  - 9. Features of the occurrence of osteomyelitis in children and the elderly.
  - 10. Complications of odontogenic osteomyelitis, their prevention.

## Topic $N_2$ 7. Acute odontogenic maxillary sinusitis: etiology, pathogenesis, classification, clinical flow, diagnosis, prevention, treatment, complications, their prevention. Plastic closure of oro-antral connection.

Anatomical background of occurrence. Etiology, pathogenesis. Classification. Acute odontogenic sinusitis. Methods of diagnosis and treatment. Oro-antral connections. Clinic, diagnosis, indications for their closure. Methods of surgical interventions. Prevention of oro-antral connections.

#### The list of questions to be studied by the student at the lesson:

- 1. Microflora, which causes purulent-inflammatory processes in the maxillofacial area.
- 2. Ways of infection spreading in the maxillofacial area.
- 3. Modern classification of inflammatory diseases of the jaw bones.
- 4. Cervical sinus, structural features, types.
- 5. Examination of patients with sinusitis.
- 6. Features of X-ray examination.
- 7. Etiology and pathogenesis, classification of odontogenic sinusitis.
- 8. Clinic of acute sinusitis.
- 9. Diagnosis and differential diagnosis of acute sinusitis.
- 10. Impressions and contraindications for surgical treatment of sinusitis.
- 11. Plastic closure of of oro-antral connections.
- 12. Complications of odontogenic sinusitis.

## Topic N $_2$ 8. Chronic odontogenic maxillary sinusitis: etiology, pathogenesis, classification, clinical flow, diagnosis, prevention, treatment, complications, their prevention.

Anatomical background of occurrence. Etiology, pathogenesis. Classification. Chronic odontogenic sinusitis: classification, clinic, diagnosis, differential diagnosis, methods of surgical and conservative treatment. Methods of surgical interventions.

#### The list of questions to be studied by the student at the lesson:

- 1. Microflora, which causes purulent-inflammatory processes in the maxillofacial area.
- 2. Ways of infection spreading in the maxillofacial area.
- 3. Modern classification of inflammatory diseases of the jaw bones.
- 4. Maxillary sinus, structural features, types.
- 5. Examination of patients with sinusitis.
- 6. Features of X-ray examination.
- 7. Etiology and pathogenesis, classification of odontogenic sinusitis.
- 8. Clinic of chronic sinulitis. Diagnosis.
- 9. Impressions and contraindications for surgical treatment of sinusitis.
- 10. Surgical methods of treatment of chronic sinusitis.
- 11. Complications of odontogenic sinusitis.

## Topic $N_29$ . Surgical anatomy of cellular spaces of maxillofacial area (MFA). Ways of spreading odontogenic infection. Classification of phlegmon and abscesses of MFA. General clinical signs, diagnostic techniques and integrated treatment.

Surgical anatomy of interfacial and intermuscular cellular spaces of the head and neck. Definition of the concepts of abscess and phlegmon. Etiology and pathogenesis of the abscess and phlegmon of the maxillofacial area and neck. Ways and mechanisms of spreading the infectious process. Classification, surface and deep processes. General and local clinical characteristics of the abscess and phlegmons of the pharyngeal and adjacent areas. Etiological and pathogenetic principles of general and local treatment of inflammatory processes. Surgical treatment, its goals. The value of choice and techniques for the implementation of operational access. Anesthesia during surgical interventions due to abscess and phlegmon of maxillofacial localization, different localizations. The use of mediciaments, immunotherapy and physiotherapy procedures. Osteophlegmon and adenophlegmon, superficial and deep abscess and phlegmon: a comparative characteristic of etiology, pathogenesis, clinical flow, treatment of complications, rehabilitation of patients.

#### The list of questions to be studied by the student at the lesson:

- 1. Etiology of abscesses and phlegmon of maxillofacial area.
- 2. Pathogenesis of abscesses and phlegmon of maxillofacial area.
- 3. What cellular spaces belong to superficial, which are deep.
- 4. Options for the clinical flow of phlegmon.
- 5. Ways of spreading infection.
- 6. Classification of abscesses and phlegmon of maxillofacial area.
- 7. Clinical picture of abscesses and phlegmon (general manifestations, local signs).
- 8. Subjective survey method.
- 9. Objective method of examination: review, palpation, percussion.
- 10. Additional and laboratory methods of examination.
- 11. Basic principles of treatment of abscesses and phlegmon of maxillofacial area.
- 12. Choosing the type of anesthesia for surgical intervention.
- 13. Stages of the operation the disclosure of abscesses and phlegmon.
- 14. Local treatment of postoperative wounds.
- 15. Basic principles of medical therapy (antibacterial therapy, detoxification, immunotherapy, hyposensibilizing therapy).
  - 16. Additional methods of local and general treatment.
  - 17. Differences in the clinical flow of superficial and deep phlegmon.

## Topic №10. Lymphadenitis, adenophlegmons of MFA: etiology, pathogenesis, clinic, diagnosis, treatment, prophylaxis. Inflammatory infiltrates in MFA. Features of occurrence, localization, clinical flow, differential diagnosis, modern methods of treatment.

Anatomy and functions of the lymphatic system of the face and neck, classification. Acute and chronic lymphadenitis. Abscessing lymphadenitis. Adenoflegmon. Diagnosis and differential diagnostics, clinic, treatment. Endolymphatic therapy.

#### The list of questions to be studied by the student at the lesson:

- 1. Ways of infection spreading in the maxillofacial area.
- 2. Classification of lymphadenitis and inflammatory infiltrates of MFA.
- 3. Types of reactions and features of the clinical flow of inflammatory diseases of the maxillofacial area.
  - 4. Etiology and pathogenesis of lymphadenitis.
  - 5. Acute lymphadenitis, clinic, diagnosis, treatment.
  - 6. Chronic lymphadenitis, clinic, diagnosis, treatment.
  - 7. Adenophlegmon, clinic, diagnostics, principles of surgical treatment.
  - 8. Possible complications of inflammation of the lymph nodes, the principles of their prevention.
  - 9. Inflammatory infiltrates, principles of diagnosis and treatment.

# Topic №11. Abscesses of the palate, phlegmons of the infraorbital and zygomatic areas. Abscesses and phlegmons of the temporal area, subtemporal and pterygo-palatal fossas. Phlegmon of the orbit. Topographic anatomy, etiology, pathogenesis, clinical flow, diagnosis, treatment, complications and prevention.

Abscesses and phlegmons of superficial and deep areas of the middle zone of the face: buccal, zygomatic, temporal areas, subtemporal and pterygo-palatal fossas. Features of surgical treatment of phlegmons of the eye.

- 1. Causes of abscesses of soft and hard palate.
- 2. The main clinical symptoms, the results of additional methods of examination of patients with soft and hard palate abscesses.
  - 3. Ways of spreading infection with abscesses of soft and hard palate.
  - 4. Modern surgical and conservative methods for treating abscesses of soft and hard palate.
  - 5. Operational access and stages of operation of disclosure of abscess of hard palate.
  - 6. Operational access and stages of operation of opening of abscess of soft palate.
  - 7. Methods of dialysis of the inflammation center. Features of postoperative wound care.
  - 8. Drug treatment for patients with abscesses of soft and hard palate.
  - 9. Possible complications of abscesses of soft and hard palate.
  - 10. Causes of abscesses and phlegmon of the suborbital and zygomatic areas.
- 11. The main clinical symptoms, the results of additional methods of examination of patients with abscesses and phlegmons of the suborbital and zygomatic areas.
  - 12. Ways of spreading infection from these topographic and anatomical sites.

- 13. Modern surgical and conservative methods of treatment of abscesses and phlegmon of the suborbital and zygomatic areas.
- 14. Operational accesses and stages of the disclosure of abscesses and phlegmon of this localization. 15. The essence of medical and physiotherapeutic treatment of patients with purulent-inflammatory diseases of the suborbital and zygomatic areas.
- 16. Complications that may arise during abscesses and phlegmons of the suborbital and zygomatic areas.
  - 17. The terms of hospitalization and temporary disability, depending on the severity of the disease.
  - 18. Causes of abscesses and phlegmon of the subtemporal and pterygo-palatal fossas.
  - 19. Ways of spreading the infection to the subtemporal and pterygo-palatal fossas.
- 20. Complaints of the patient, characterized by internal and external manifestations of abscesses and phlegmon of the specified localization.
  - 21. Additional research methods.
  - 22. Differential diagnostics.
- 23. Types of operational access in the treatment of abscesses and phlegmon of the subtemporal and pterygo-palatal fossas.
- 24. Principles of general treatment of patients with abscesses and phlegmons of deep cellular spaces adjacent to the upper jaw.
  - 25. Ways of spreading infection from these cellular spaces.
- 26. Possible complications of purulent processes of subtemporal and pterygo-palatal fossas, their prevention.
  - 27. Etiology and pathogenesis of abscesses and phlegmon of the temporal area.
  - 28. Ways of spreading infection in the temporal area.
- 29. Clinical manifestations, main pathognomonic signs of abscess development and phlegmon of the temporal area.
- 30. Basic principles of diagnostics, differential diagnosis of abscesses and phlegmons of the temporal area.
  - 31. Treatment of abscesses and phlegmons of temporal area.
  - 32. Etiology and pathogenesis of phlegmon of the orbit and retrobulbary space.
  - 33. Ways of infection spreading to the orbit and retrobulbary space.
- 34. Clinical manifestations, main pathognomonic signs of development of phlegmon of the orbit and retrobulbary space.
- 35. Basic principles of diagnostics, differential diagnostics of phlegmon of the orbit and retrobulbary space.
  - 36. Treatment of phlegmon of the orbit and retrobulbary space.
  - 37. Complications, causes, major clinical manifestations, diagnosis and treatment.
- 38. Principles of the prevention of abscess development and phlegmon of the temporal area, phlegmon of the orbit and retrobulbary space.

### Topic №12. Phlegmons of the buccal, parotid-masseteric, retromandibular areas: topographic anatomy, etiology, pathogenesis, clinical flow, diagnosis, treatment, complications and prevention.

Abscess and phlegmon of cellular spaces adjacent to the ramuses of the lower jaw: the parotid-masseteric, retromandibular, pterygo-mandibular and parapharyngeal areas.

#### The list of questions to be studied by the student at the lesson:

- 1. Classification of phlegmon of maxillofacial area.
- 2. Etiology and pathogenesis of phlegmons of the buccal, parotid-masseteric, retromandibular areas. 3. Features of the clinical flow of the phlegmon of the buccal, parotid-masseteric, retromandibular areas.
  - 4. Methods of clinical and laboratory diagnostics of phlegmon of these localizations.
- 5. Conservative and surgical methods of treatment of phlegmon of the buccal, parotid-masseteric, retromandibular areas.
- 6. Differential diagnostics of phlegmon of the buccal, parotid-masseteric, retromandibular areas with periostitis, furuncle, carbuncle, abscess, erysipelas, sialoadenitis and other inflammatory processes of soft tissues of the maxillofacial area.
- 7. Complications of phlegmon of buccal, parotid-masseteric, retromandibular areas and treatment of them.

Topic Neq 13. Phlegmons of the submental, submandibular areas, parapharyngeal and pterygomandibular spaces: topographic anatomy, etiology, pathogenesis, clinical flow, diagnosis, treatment, complications and prevention.

Phlegmons and abscesses of the submental, submandibular areas, parapharyngeal and pterygomandibular spaces.

#### The list of questions to be studied by the student at the lesson:

- 1. Etiology and pathogenesis of phlegmon of the submandibular area.
- 2. Etiology and pathogenesis of phlegmon of the submental area.
- 3. Features of the clinical flow of the phlegmon of the submandibular area.
- 4. Features of the clinical flow of the phlegmon of the submental area.
- 5. Conservative and surgical treatment of phlegmon of the submandibular area.
- 6. Conservative and surgical treatment of the phlegmon of the submental area.
- 7. Differential diagnostics of the phlegmons of submandibular and of the submental areas.
- 8. Complication of phlegmon phlegmon of the submandibular and submental areas and treatment of them.
  - 9. Etiology and pathogenesis of phlegmon of biliary and wing-jaw spaces.
  - 10. Ways of infection spreading to the oblong and wing-jaw spaces.
- 11. Clinical manifestations, major pathognomonic signs of phlegmon of the parapharyngeal and pterygo-mandibular spaces.
- 12. Basic principles of diagnostics, differential diagnostics of the parapharyngeal and pterygomandibular spaces.
  - 13. Treatment of the parapharyngeal and pterygo-mandibular spaces.
  - 14. Complications, causes, major clinical manifestations, diagnosis and treatment.
  - 15. Principles of prevention of development of the parapharyngeal and pterygo-mandibular spaces.

# Topic №14. Abscess of the sublingual groove and mandibulo-lingual groove. Abscesses and phlegmons of the tongue, its root. Phlegmon of the bottom of the oral cavity. Purulent- necrotic phlegmon of Ludwig (Ludwig's angina). Topographical anatomy, etiology, pathogenesis, clinical flow, diagnosis, treatment, complications, their prevention.

Abscess and phlegmon of cellular spaces located near the body of the lower jaw: submandibular and submental triangles, mandibulo-lingval groove. Phlegmon of the bottom of the cavity of the mouth and neck. Purulent-necrotic phlegmon of the face and neck. Phlegmon that progresses.

#### The list of questions to be studied by the student at the lesson:

- 1. Etiology and pathogenesis of abscesses of the sublingual groove and mandibulo-lingual groove, abscesses and phlegmons of the tongue.
- 2. Ways of spreading infection in the area of the sublingual groove and mandibulo-lingual groove and the tongue.
- 3. Clinical manifestations, main pathognomonic signs of development of abscesses of the sublingual groove and mandibulo-lingual groove, abscesses and phlegmons of the tongue and tongue's root.
- 4. Basic principles of diagnostics, differential diagnosis of abscesses of the sublingual groove and mandibulo-lingual groove, abscesses and phlegmons of the tongue and tongue's root.
- 5. Treatment of abscesses of the sublingual groove and mandibulo-lingval groove, abscesses and phlegmons of the tongue and tongue's root.
  - 6. Complications, causes, major clinical manifestations, diagnosis and treatment.
- 7. Etiology and pathogenesis of phlegmon of the bottom of the oral cavity and purulent-necrotic angina of Ludwig.
  - 8. Ways of infection spreading to the bottom of the oral cavity.
- 9. Clinical manifestations, main pathognomonic signs of development of phlegmon of the bottom of the oral cavity and purulent-necrotic angina of Ludwig.
- 10. Basic principles of diagnostics, differential diagnosis of phlegmon of the bottom of the oral cavity and purulent-necrotic angina of Ludwig.
- 11. Treatment of phlegmon of the bottom of the oral cavity and purulent-necrotic angina of Zhansul-Ludwig.
  - 12. Complications, causes, major clinical manifestations, diagnosis and treatment.
- 13. Principles of prophylaxis of development of phlegmon of the bottom of the oral cavity and purulent-necrotic angina of Ludwig.

## Topic №15. Specific inflammatory processes of MFA: actinomycosis, tuberculosis, syphilis. Etiology, pathogenesis, clinical flow, diagnostics, treatment, prevention. HIV infection / AIDS. Manifestations in the maxillofacial area.

Actinomycosis of the maxillofacial area. Etiology and pathogenesis. Ways of infiltration. Classification of actinomycosis. Clinical flow, diagnostics, differential diagnostics, general principles of treatment. Tuberculous lesion of the organs of the oral cavity and jaws. Clinic, diagnostics, differential diagnostics,

treatment. Syphilis. Manifestations in the maxillofacial area. Diagnostics, medical tactics. Prevention. HIV infection / AIDS. Manifestations in the oral cavity and maxillo-facial area.

#### The list of questions to be studied by the student at the lesson:

- 1. Etiopathogenesis and classification of actinomycosis.
- 2. Paths of penetration actinomycetes.
- 3. Features of the clinical picture at different forms of actinomycosis.
- 4. Surgical treatment of actinomycosis.
- 5. Specific immunotherapy of actinomycosis.
- 6. Antibiotic therapy of concomitant actinomycosis of the microflora.
- 7. X-ray therapy of actinomycosis.
- 8. Consequences and possible complications of actinomycosis.
- 9. Etiopathogenesis of syphilis.
- 10. Features of the clinical picture in primary, secondary and tertiary syphilis.
- 11. Differential diagnosis and principles of treatment of syphilis.
- 12. Etiopathogenesis of tuberculosis.
- 13. Clinical picture in various forms of tuberculosis:
- tuberculous lymphadenitis; Primary skin tuberculosis;
- tuberculosis lupus
- Miliary-ulcer tuberculosis;
- disinitiated miliary tuberculosis of the person;
- rosacea and papular-necrotic tuberculosis;
- Tuberculosoderma;
- Tuberculosis of the salivary glands;
- Tuberculosis of the jaws.
- 14. Differential diagnostics and principles of tuberculosis treatment.
- 15. Complications and consequences of the disease.
- 16. Stages of HIV infection in humans.
- 17. Manifestations of AIDS in the maxillofacial area.
- 18. Modern methods of treatment of HIV infection.
- 19. Prevention of tuberculosis, actinomycosis, syphilis and AIDS in the maxillofacial area.

## Topic No16. Furuncles and carbuncles of the face: etiology, pathogenesis, classification, clinical flow, diagnosis, treatment, complications and prevention. Erysipelas of the face, noma, hemodynamic necrosis. Diphtheria. Manifestations in the oral cavity. Clinical flow, diagnostics, treatment, prevention.

Furuncles and carbuncles of the face. Clinical flow, treatment, prevention of complications. Erysipelas inflammation. Noma, etiology, pathological anatomy, prevention, treatment. Complications and consequences. Necrotic processes of tissues of the maxillofacial area of another origin. Complications of inflammatory processes in the maxillofacial area. Diphtheria. Spread. Clinical flow, diagnostics, prevention.

- 1. Definition of the terms furuncle and carbuncle.
- 2. Classification of furuncles and carbuncles.
- 3. Favorable factors for the development of furuncles and carbuncles.
- 4. The role of pathogens. 5. Features of localization of boils and carbuncles in different areas of the person.
  - 6. Clinical flow of the disease.
  - 7. Features of surgical intervention.
- $8. \ \ Drug \ treatment: \ anti-inflammatory, \ detoxification, \ restoration, \ immunostimulating \ the rapy.$ 
  - 9. Local complications. Their prevention and treatment.
  - 10. General complications. Their prevention.
  - 11. Possible causes and role of the associated factors in the occurrence of noma of the face.
  - 12. Clinical signs of the noma in the oral cavity (gingivitis, ulcerous-necrotic stomatitis their features).
  - 13. Clinical stages of the noma.
  - 14. Complications that occur during and after of the noma, their prevention and treatment.
  - 15. Principles of complex treatment of the noma.
  - 16. Possible ways of infiltration into the skin of the face.
- 17. Mechanism of development of erysipelas inflammation, the role of sensitization of the organism in the development of this pathology.
  - 18. Classification of erysipelas inflammation for:

- expression of clinical manifestations,
- the severity of the infectious process,
- the nature of the spread of local manifestations,
- multiplicity of the disease.
- 19. Differential diagnosis of erysipelas inflammation with polymorphic exudative erythema, scarring, red system lupus erythematosus, anthrax, syphilis, microbial eczema, dermatitis.
- 20. Complications that may occur with whitish inflammation: lymphedema, sepsis, meningitis clinical signs, principles of treatment.
  - 21. Principles of treating erysipelas inflammation.
  - 22. Causes and concomitant factors contributing to the development of Wegener's disease.
  - 23. The main clinical manifestations of Wegener's disease in the oral cavity.
  - 24. Characteristic indicators of laboratory blood studies in Wegener's disease.
  - 25. Differential diagnosis of Wegener's disease with cancer, syphilis, tuberculosis.
  - 26. Principles of treatment and prevention of Wegener's disease.
  - 27. Etiology of diphtheria.
  - 28. Characteristic clinical signs and diagnosis of diphtheria.
- 29. Differential diagnosis of diphtheria with infectious mononucleosis, scarlet fever, leukemia, sore throat.
  - 30. Principles of local and general treatment of diphtheria.
  - 31. Prevention of diphtheria.

Topic №17. Complications of inflammatory processes of the maxillofacial area: mediastinitis, sepsis, brain abscess, thrombosis of the facial veins and cavernous sinus, pneumonial abscesses, infectious-toxic shock, and others. Classification, pathogenesis, peculiarities of clinical flow, diagnosis, treatment, prognosis.

Purulent thrombophlebitis, cavernous sinus thrombosis, meningitis, mediastenitis, encephalitis, sepsis, infectious and toxic shock. Their etiology, pathogenesis, clinical picture, treatment. Principles of therapy.

#### The list of questions to be studied by the student at the lesson:

- 1. Phases of sepsis. Clinic, diagnostics.
- 2. Differential diagnosis of sepsis.
- 3. Treatment of odontogenic sepsis.
- 4. Clinical flow and diagnosis of brain abscess.
- 5. Treatment and prevention of brain abscess.
- 6. Etiology and pathogenesis of cavernous sinus thrombosis.
- 7. Clinical picture with thrombosis of cavernous sinus.
- 8. Treatment and prognosis for thrombosis of cavernous sinus.
- 9. Etiology, pathogenesis of odontogenic sepsis.
- 10. Classification of forms of acute purulent infection.
- 11. Phases of sepsis.
- 12. Criteria for the generalization of pathogenic infection.
- 13. Clinic, diagnostics, differential diagnostics and treatment: a) purulent-resorptive fever; b) the initial form of sepsis; c) septicemia; g) septicopia; e) septic shock.
  - 14. Etiology, pathogenesis of odontogenic mediasthenitis.
  - 15. Ways of penetration of odontogenic infection into mediastinum.
- 16. Classification of mediasthenite: a) by origin; b) by type of inflammation; c) by localization; r) by the clinical flow.
  - 17. Clinic, diagnostics, differential diagnosis and treatment of mediasthenitis and mediastinal gutters.
- 18. Etiology, pathogenesis, ways of spreading the infection, clinic, diagnostics, differential diagnosis and treatment of phlegmon: a) the anterior part of the sublingual part of the neck; b) the lateral part of the neck; c) the posterior part of the neck;
  - d) necrotic fasciitis of maxillofacial area and neck.

### Topic №18. Arthritis and arthrosis of the temporomandibular joint (TMJ): classification, clinical flow, diagnosis, treatment, complications, their prevention.

Classification of TMJ diseases. Survey of patients with TMJ diseases. Arthritis of the temporomandibular joint. Classification, clinical picture, diagnosis, treatment. Arthrosis of the temporomandibular joint. Classification, clinical picture, diagnosis, treatment. Possibilities of arthroscopy and arthroscopic surgery of TMJ diseases. Syndrome of pain dysfunction of TMJ. Etiology, pathogenesis, diagnostics, treatment. Kosten's syndrome.

- 1. Etiology of arthritis.
- 2. Ways of infection spreading to the TMJ.
- 3. Classification of arthritis.
- 4. Types of arthrosis.
- 5. Features of clinical symptomatology of arthrosis, their diagnostics.
- 6. X-Ray features of arthrosis and differential diagnostics.
- 7. Characteristics of pain syndrome.
- 8. Treatment of arthritis.
- 9. Treatment of arthrosis.
- 10. Treatment of pain syndrome.
- 11. Composition and prevention of these diseases.

## Topic №19. Acute sialoidenitis: classification, etiology, clinical flow, diagnosis, treatment, complications, their prevention.

Classification of diseases of the salivary glands. Methods of examination of patients: clinical, laboratory, radiological (sialography), radiological: pantomo- and radiosyalography, sialoscintigrafia. Inflammation of the salivary glands. Classification, etiology, pathogenesis. Parotitis. Banal bacterial sialadenitis. Acute lymphogenous and contact sialadenitis. Postoperative and postinfectious parotitis. Acute inflammation of the submandibular and sublingual salivary glands. Clinic, differential diagnostics. Treatment of acute sialadenitis (conservative and surgical). False parotitits, differential diagnosis.

#### The list of questions to be studied by the student at the lesson:

- 1. Classification of acute sialoadenitis.
- 2. Epidemic parotitis: etiology and pathogenesis of the disease.
- 3. Epidemic parotitis: clinical picture, diagnosis, differential diagnosis, treatment and prevention.
- 4. Acute viral sialoadenitis (caused by an epidemic parotitis virus, flu, cytomegaly, herpes, etc.). Etiology, pathogenesis, clinical picture, diagnostics, differential diagnosis, treatment and prevention.
- 5. Acute bacterial sialoadenitis. Etiology and pathogenesis of the disease, factors contributing to the occurrence.
  - 6. Purulent-necrotic parotitis. Causes, clinical flow, diagnosis, differential diagnosis and treatment.
- 7. Lymphogenous parotitis (Herzenberg's false parotitis). Etiology, pathogenesis, clinical picture, diagnostics, differential diagnosis, treatment.
- 8. Acute contact sialoadenitis. Etiology, pathogenesis, clinical picture, diagnostics, differential diagnosis and treatment.
- 9. Sialoadenitis, caused by the entry of an extraneous body into the excretory duct of the gland. Clinical picture, diagnosis and treatment.

Topic №20. Chronic sialoadenitis: classification, etiology, clinical flow, diagnosis, treatment, complications, their prophylaxis. Sialosis: classification, etiology, clinical flow, diagnosis, treatment, complications, their prophylaxis. Salivary stone disease (sialolithiasis): etiology, pathogenesis, clinical flow, diagnosis, treatment, complications, their prophylaxis. Final lesson "Inflammatory processes of MFA".

Chronic inflammation of the salivary glands. Parenchymatous, interstitial and duct (sialodochit) sialadenitis: etiology, pathogenesis, clinic, differential diagnosis. Methods of treatment. The calculous sialadenitis is a salivary gland disease. Formation and composition of salivary stones. Clinic, diagnostics, complications, treatment. Operative access and anesthesia during removal of salivary stones. Stenosis and atresia of salivary ducts. Diagnosis, treatment. Damage to the salivary glands. Classification, clinical picture, treatment. Fistulas of salivary glands. Causes of salivary glands fistulas formation. Full and partial fistulas. Methods of examination: fistulography, sounding. Differential diagnosis and treatment. Inhibition of the function of the gland (medication, radiation). Plastics of the outflow ducts. Reactive dystrophic diseases of the salivary glands. Mikulich's disease (lymphoma of the glands). Syndrome and Sjogren's Disease. Xerostomia as a symptom of the malfunction of the salivary glands.

- 1. Classification of chronic sialoadenitis.
- 2. Parenchymal parotitis: etiology and pathogenesis of the disease, factors contributing to the stage of disease.
  - 3. Parenchymal parotitis: clinical picture depending on the stage of the disease.
  - 4. Sialography: characteristic changes in parenchymal parotitis.
  - 5. Treatment of chronic parenchymal parotitis.

- 6. Sclerosing submaxylitis: etiology and pathogenesis of the disease.
- 7. Clinic of sclerosing submaxylitis.
- 8. Differential diagnosis of sclerosing submaxilitis.
- 9. Treatment of sclerosing submaxylitis.
- 10. Definition of the term "sialosis".
- 11. Classification of sialosis.
- 12. Causes of sialosis.
- 13. Stages of sialosis.
- 14. Sjogren syndrome: the main clinical symptoms.
- 15. Treatment of Sjogren syndrome.
- 16. Mikulich's disease: probable etiology and pathogenesis of the disease.
- 17. The main clinical symptoms in Mikulich's disease.
- 18. Treatment of Mikulich's disease.
- 19. Heerford's syndrome: clinical symptoms that distinguish it from other sialomas.
- 20. Treatment of Heerford's syndrome.
- 21. Etiology and pathogenesis of sialolithiasis.
- 22. Influence of endocrine pathology, mineral metabolism disorders, retinol hypovitaminosis, heredity on the causes of salivary formation.
  - 23. The basic methods of diagnostics of the sialolithiasis, differential diagnostics.
  - 24. Clinical manifestations of the sialolithiasis.
  - 25. Methods of surgical treatment of the sialolithiasis.
  - 26. Complications, causes of occurrence, basic clinical manifestations of the sialolithiasis.

### The list of questions that the student should study for mastering the content module 2

- 1. Diseases of teeth eruption. Dystopia and retention. Clinic, diagnostics. Indications and methods of removal of teeth.
- 2. Pericoronitis. Causes, classification, clinic, diagnostics, methods of conservative and surgical treatment.
- 3. Etiology, pathogenesis and classification of inflammatory processes in the oral and maxillofacial area.
- 4. Acute periodontitis. Classification, clinic, diagnostics and treatment.
- 5. Chronic periodontitis. Classification. Clinic, diagnostics.
- 6. Chronic granulomatous periodontitis, clinic and diagnostics. Types of granulomas, theories of origin of epithelial granulomas.
- 7. Surgical methods for the treatment of chronic periodontitis. Resection of the root apex. Indications, technique, and possible complications and their prevention.
- 8. Surgical methods for the treatment of chronic periodontitis. Hemisection, amputation, replantation. Indications. The method of conduction. Possible complications and their prevention.
- 9. Replantation of the tooth: simultaneous and delayed, indications and contraindications, method of operation, complications. The connection types of the root of the tooth with the alveola.
- 10. Causes of acute exacerbations of chronic periodontitis pathogenesis. Treatment, prevention of complications.
- 11. Periostitis of jaw: classification, etiology, pathogenesis, clinical picture, differential diagnosis.
- 12. Treatment of acute purulent odontogenic periostitis of jaw.
- 13. Osteomyelitis of the jaws. Etiology, theories of pathogenesis, classification.
- 14. Odontogenic osteomyelitis of the jaws. The acute phase. Clinic, diagnostics, treatment.
- 15. Odontogenic osteomyelitis of the jaws. Chronic stage. Clinic, diagnostics. Conservative treatment. Operation sequestrectomy. Indications, timing and technique. Prevention of complications.
- 16. Peculiarities of the clinical flow odontogenic osteomyelitis lower and upper jaws. Anatomical and topographical features. Complications of osteomyelitis.
- 17. Differential diagnosis of acute periodontitis, periostitis and osteomyelitis of the jaws.
- 18. Peculiarities of the clinical flow, diagnosis and treatment non-odontogenic acute osteomyelitis of the jaws.
- 19. Acute hematogenous osteomyelitis of the maxilla: etiology, clinical features, complications and treatment.
- 20. Actinomycosis of the maxillofacial area: clinical presentation, differential diagnosis, treatment.
- 21. Syphilis of the maxillofacial area: clinical presentation, differential diagnosis, treatment.
- 22. Tuberculosis of the maxillofacial area: clinical presentation, differential diagnosis, treatment.
- 23. Surgical anatomy of cellular spaces of the maxillofacial area. The way of the spread of odontogenic infection.
- 24. Abscess and phlegmon of the maxillofacial area. Inflammatory clinical signs, principles of diagnosis.
- 25. Abscess and phlegmon of the maxillofacial area. The principles of complex treatment.
- 26. Phlegmon of the infratemporal and pterygopalatal fossae. Etiology, pathogenesis, clinic, diagnostics, treatment.

- 27. Phlegmon of the temporal area. Causes, clinical signs, diagnostics, treatment.
- 28. Abscesses and phlegmons of the suborbital and zygomatic areas. Causes, clinical signs, diagnostics, treatment.
- 29. Abscess and phlegmons of the submandibular space. Its surgical anatomy. Causes, clinical signs, diagnostics, treatment.
- 30. Abscess and phlegmons of the pterygoid cellular space. Surgical anatomy, causes, clinical signs, diagnostics, treatment.
- 31. Abscess and phlegmons of the sumasseterical cellular space. Surgical anatomy. Causes, clinical signs, diagnostics, treatment.
- 32. Abscess and abscess of the parotid-masseteric area. Causes, surgical anatomy, clinical signs, diagnostics, treatment.
- 33. Abscess and phlegmon of the buccal area. Surgical anatomy, causes. Clinical signs, diagnostics, treatment.
- 34. Abscess and phlegmon of the retromandibular area. Surgical anatomy, causes, clinical signs, diagnostics, treatment.
- 35. Abscess and phlegmon of the tongue. Causes, clinical signs, diagnostics, treatment.
- 36. Cellulitis of bottom of the oral cavity. Surgical anatomy, causes, clinical signs, diagnostics, treatment.
- 37. Abscess of the mandibular-lingual groove. Surgical anatomy, causes, clinical signs, diagnostics, treatment.
- 38. Ludwig angina. Surgical anatomy, causes, clinical signs, diagnostics, treatment.
- 39. Abscess and phlegmon of the parapharyngeal cellular space. Surgical anatomy, causes, clinical signs, diagnostics, treatment.
- 40. Odontogenic and non-odontogenic phlegmons of MFA: differential diagnosis, clinical findings, treatment, complications.
- 41. Clinic, topographic anatomy and treatment of the phlegmon of the neck.
- 42. General treatment of phlegmons of MFA. To write the necessary prescriptions.
- 43. Odontogenic mediastinitis: etiology, pathogenesis, clinical signs, diagnosis.
- 44. Differential diagnosis of odontogenic mediastinitis, surgical and medical treatment.
- 45. Sepsis, toxic shock. Etiology, clinical signs, differential diagnosis, treatment.
- 46. Thrombophlebitis of veins of the face, thrombosis of the cavernous sinus. Etiology, clinical signs, differential diagnosis, treatment.
- 47. Odontogenic abscess of the brain, meningitis. Etiology, clinical signs, treatment.
- 48. Odontogenic sinusitis. Etiology, pathogenesis, classification, clinical signs, diagnostics.
- 49. Odontogenic sinusitis. Conservative and surgical treatment. Complications and their prevention.
- 50. Clinic, diagnostics and treatment of arthritis and arthrosis of the temporomandibular joint. To write the necessary prescriptions.
- 51. Lymphadenitis of the maxillofacial area: classification, clinical signs, differential diagnosis, treatment. Furuncle and carbuncle of the maxillofacial area: classification, clinical signs, complications and treatment.
- 52. Acute inflammation of the salivary glands: classification, clinical signs, treatment.
- 53. Sialolithiasis: etiology, clinical features, complications and treatment.
- 54. Pseudoparotits of Gerzenberg and parotid gland inflammation.
- 55. Chronic inflammation of the salivary glands: classification, clinical signs, treatment.
- 56. Systemic diseases of the salivary glands: a disease of Mikulich, Sjogren syndrome.
- 57. Noma. Etiology, pathogenesis, clinical signs, treatment. Differential diagnosis, complications.

#### 3. Structure of the discipline

Торіс	Lecture	Practical classes	Self-study	Individual work
Content module 1 "Propedeutics of surgical dentistry"				

		_		
<b>Topic №1.</b> Organization of dental surgery care. The structure of oral and maxillofacial surgery department. Maxillofacial examination methods. Registration of medical documentation. Principles of asepsis in oral surgery. Oral resistance factors. Prevention of socially significant infections (AIDS, tuberculosis, hepatitis, syphilis).	2	2	4 4 4	
<b>Topic №2.</b> Pain, its components, pathways of pain. Classification of anesthesia methods, indications and contraindications. General anesthesia. Sedation.		2	4	
<b>Topic №3.</b> Local anesthetics, their properties, side effects. Classification. Indications and contraindications for local anesthesia. Methods of topical and infiltrative anesthesias.		2	4	
<b>Topic №4.</b> Peripheral conductive mandible anesthesia: torusal, mandibular. Indications, methods. Local complications, treatment and prevention.		2		
<b>Topic №5.</b> Peripheral conductive mandible anesthesia: mental, buccal and lingual. Indications, methods. Local complications, treatment and prevention.	2	2		
<b>Topic №6.</b> Peripheral conductive maxilla anesthesia: tuberal, infraorbital. Indications, methods. Local complications, treatment and prevention.		2		
<b>Topic №7.</b> Peripheral conductive maxilla anesthesia: nasopalatal (incisal), palatal. Indications, methods. Local complications, treatment and prevention.		2		-
<b>Topic №8.</b> Central conductive anesthesia methods of jaws and adjacent tissues. Local complications, treatment and prevention.		2		
<b>Topic №9.</b> General complications of local anesthesia, treatment and prevention. Cardiopulmonary resuscitation.	2	2	5	
<b>Topic №10.</b> Indications and contraindications of tooth extraction. Instruments. Preoperative management of patients. Patients with concomitant pathology preparation for teeth extraction.		2	5	
<b>Topic №11.</b> Maxillary teeth extraction methods. Stages of the procedure.	2	2		
<b>Topic №12.</b> Mandible teeth extraction methods. Stages of the procedure.		2		
<b>Topic №13</b> Complications of tooth extraction: clinical sings, diagnosis, treatment and prevention.		2		
<b>Topic №14.</b> Impacted and unerupted teeth. Classification of Impacted teeth. Indications and contraindications for Impacted teeth extraction. Surgery and perioperative care. Complications of Impaction surgery. <b>Summary lesson.</b>		2	5	
Total module 1	8	28	39	
Content module 2 "Inflammatory processes	of MF	FA''	·	
<b>Topic</b> №1. Inflammatory diseases of maxillofacial area: classification, etiology, pathogenesis, clinical features of odontogenic inflammatory diseases. The role of immune, endocrine, reticulo-endothelial systems.		3	5	
<b>Topic</b> №2. Diseases of teeth eruption. Pericoronitis: etiology, pathogenesis, clinical signs, diagnosis, treatment, complications.		3		
<b>Topic №3.</b> Acute and chronic periodontitis: classification, etiology, pathogenesis. Clinical signs, diagnosis, surgical treatment, complications and prevention. Odontogenic face granuloma : clinical signs, diagnosis, surgical treatment.	2	3	5	-
<b>Topic №4.</b> Odontogenic periostitis (acute, chronic): etiology, pathogenesis, clinical features, diagnosis, treatment, complications, prevention.		3		

<b>Topic №5</b> . Acute odontogenic osteomyelitis: etiology, pathogenesis, classification. Modern osteomyelitis origin theories. Clinical sings, diagnostics, treatment (surgical, medication, physiotherapeutic), complications, prevention.		3	5	
<b>Topic №6.</b> Chronic odontogenic osteomyelitis: clinical features, diagnosis, treatment, complications, prevention. Clinical features and treatment in patients with narcotic addiction.		3		
<b>Topic №7.</b> Acute odontogenic maxillary sinusitis: etiology, pathogenesis, classification, clinical signs, diagnosis, prevention, treatment, complications. Plasty of oro-antrum communication.	2	3	5	
<b>Topic №8.</b> Chronic odontogenic maxillary sinusitis: etiology, pathogenesis, classification, clinical signs, diagnosis, prevention, treatment, complications. Plasty of oro-antrum communication.		3		
<b>Topic №9.</b> Surgical anatomy of cellular spaces of maxillofacial area. Ways of spreading odontogenic infection spreading ways. Classification of phlegmon and abscesses of maxillofacial spaces. General clinical signs, diagnostic techniques and integrated treatment.		3	5 5 5 5 6	
<b>Topic №10</b> . Lymphadenitis, adenophlegmon of maxillofacial areas: etiology, pathogenesis, clinical features, diagnosis, treatment, prevention. Inflammatory infiltrates in maxillaofacial area. Features of occurrence, localization, clinical sings, differential diagnosis, modern treatment methods.		3		
<b>Topic №11.</b> Palate, infraorbital and zygomatic spaces absceses and phlegmons. Temporal, subtemporal and pterygopalatine spaces absceses and phlegmons. Phlegmon of the orbit. Topographic anatomy, etiology, pathogenesis, clinical signs, diagnosis, treatment, complications and prevention.		3		
<b>Topic №12.</b> Buccal, parotid-masticatory spaces phlegmon: topographic anatomy, etiology, pathogenesis, clinical signs, diagnosis, treatment, complications and prevention.	2	3		
<b>Topic</b> №13. Submental, submandibular, parapharyngeal and pterygomandibular spases phlegmons. Topographic anatomy, etiology, pathogenesis, clinical signs, diagnosis, treatment, complications and prevention.		3		
<b>Topic №14.</b> Sublingual, lingual and jaw-lingual groove abscesss. Oral cavity bottom phlegmon. Ludwig phlegmon. Topographic anatomy, etiology, pathogenesis, clinical signs, diagnosis, treatment, complications and prevention.		3		
<b>Topic №15.</b> Specific inflammatory diseases of maxillofacial area: actinomycosis, tuberculosis, syphilis. Etiology, pathogenesis, clinical features, diagnostics, treatment, prevention. HIV infection / AIDS. Manifestations in the maxillofacial area.		3	5	
<b>Topic №16.</b> Furuncles and facial carbuncles: etiology, pathogenesis, classification, clinical sings, diagnosis, treatment, complications and prevention. Erysipelas, nomi, hemodynamic necrosis. Diphtheria. Manifestations in the oral cavity. Clinical features, diagnostics, treatment, prevention		3		
<b>Topic</b> №17. Inflammatory diseases complications of the maxillofacial area: mediasthenitis, sepsis, brain abscess, thrombosis of the facial veins and cavernous sinus, infection-toxic shock etc. Classification, pathogenesis, clinical signs, diagnosis, treatment, prognosis.		3		
<b>Topic №18.</b> Arthritis and arthrosis of TMJ: classification, clinical signs, diagnosis, treatment, complications, prevention.	2	3	5	
<b>Topic №19.</b> Acute sialoidenitis: classification, etiology, clinical features, diagnosis, treatment, complications, prevention.		3	5	

<b>Topic №20.</b> Chronic sialoadenitis: classification, etiology, clinical signs, diagnosis, treatment, complications, prevention. Sialosis: classification, etiology, clinical sings, diagnosis, treatment, complications, prevention. Sialolithiasis: etiology, pathogenesis, clinical signs, diagnosis, treatment, complications, prevention. <b>Summary.</b>		4	5	
Total module 2	8	61	66	-
Total: Hours <u>210/</u> Credits ECTS <u>7</u>	16	89	105	-
Final control				Credit

# 4. Lecture lessons schedule V semester

No	Topic	Hours
1.	The history of the surgical dentistry and maxillofacial surgery department in the Danylo	2
	Halytsky Lviv National Medical University. Examination and diagnostic methods in oral	
	and maxillofacial surgery.	
2.	Anaesthesia in oral surgery: classification, indications, complications. General anaesthesia.	2
	Sedation methods. Neuroleptanalgesia (NLA). Local anaesthesia methods in maxillofacial	
	surgery.	
3.	Tooth extraction: instruments, indication and contraindications for teeth extraction,	2
	treatment planning, tooth extraction technique. Atypical (surgery) extraction. Extraction of	
	impacted and unerupted teeth. Complications of tooth extraction.	
4.	General and local complications in Oral and maxillofacial surgery. Cardiopulmonary	2
	resuscitation.	
	Total:	8

## Lecture lessons schedule VI semester

№	Topic	Hours
1.	Modern classification of inflammatory diseases of maxillofacial area. Development	2
	mechanism of odontogenic inflammatory processes. Periodontitis. Periostitis.	
	Osteomyelitis.	
2.	Odontogenic sinusitis. Modern diagnostic and treatment methods. Management of oro-	2
	antrum communication.	
3.	Topography of face and neck cellular spaces. Inflammatory processes of maxillofacial	2
	area soft tissues. Complication of maxillofacial area inflammatory processes (sepsis,	
	mediastinitis, brain abscess, cystic sinus thrombosis, etc.). Diagnosis and treatment	
	methods.	
4.	Dysfunction of the temporomandibular joint. Inflammatory and destructive processes	2
	of TMJ. Modern methods of diagnosis and treatment. Inflammatory diseases of the	
	salivary glands. Calculus sialoadenitis. Diagnosis and treatment methods.	
	Total	8

## 5. Seminar lessons schedule – not provided 6. Practical lessons schedule V semester

№	Topic	Hours
1.	<b>Topic №1.</b> Organization of dental surgery care. The structure of oral and maxillofacial surgery department. Maxillofacial examination methods. Registration of medical documentation. Principles of asepsis in oral surgery. Oral resistance factors. Prevention of socially significant infections (AIDS, tuberculosis, hepatitis, syphilis).	2
2.	<b>Topic №2.</b> Pain, its components, pathways of pain. Classification of anesthesia methods, indications and contraindications. General anesthesia. Sedation.	2
3.	<b>Topic №3.</b> Local anesthetics, their properties, side effects. Classification. Indications and contraindications for local anesthesia. Methods of topical and infiltrative	2

	anesthesias.	
4.	<b>Topic</b> №4. Peripheral conductive mandible anesthesia: torusal, mandibular. Indications, methods. Local complications, treatment and prevention.	2
5.	<b>Topic №5.</b> Peripheral conductive mandible anesthesia: mental, buccal and lingual. Indications, methods. Local complications, treatment and prevention.	2
6.	<b>Topic №6.</b> Peripheral conductive maxilla anesthesia: tuberal, infraorbital. Indications, methods. Local complications, treatment and prevention.	2
7.	<b>Topic №7.</b> Peripheral conductive maxilla anesthesia: nasopalatal (incisal), palatal. Indications, methods. Local complications, treatment and prevention.	2
8.	<b>Topic №8.</b> Central conductive anesthesia methods of jaws and adjacent tissues. Local complications, treatment and prevention.	2
9.	<b>Topic №9.</b> General complications of local anesthesia, treatment and prevention. Cardiopulmonary resuscitation.	2
10.	<b>Topic №10.</b> Indications and contraindications of tooth extraction. Instruments. Preoperative management of patients. Patients with concomitant pathology preparation for teeth extraction.	2
11.	<b>Topic №11.</b> Maxillary teeth extraction methods. Stages of the procedure.	2
12.	<b>Topic №12.</b> Mandible teeth extraction methods. Stages of the procedure.	2
13.	<b>Topic №13.</b> Complications of tooth extraction: clinical sings, diagnosis, treatment and prevention.	2
14.	<b>Topic №14.</b> Impacted and unerupted teeth. Classification of Impacted teeth. Indications and contraindications for Impacted teeth extraction. Surgery and perioperative care. Complications of Impaction surgery. <b>Summary lesson.</b>	2
	Total	28

# Practical lessons schedule VI semester

No	Topic	Hours
1.	Topic №1. Inflammatory diseases of maxillofacial area: classification, etiology,	
	pathogenesis, clinical features of odontogenic inflammatory diseases. The role of	3
	immune, endocrine, reticulo-endothelial systems.	
2.	<b>Topic №2.</b> Diseases of teeth eruption. Pericoronitis: etiology, pathogenesis, clinical	3
	signs, diagnosis, treatment, complications.	5
3.	<b>Topic №3.</b> Acute and chronic periodontitis: classification, etiology, pathogenesis.	
	Clinical signs, diagnosis, surgical treatment, complications and prevention.	3
	Odontogenic face granuloma : clinical signs, diagnosis, surgical treatment.	
4.	<b>Topic №4.</b> Odontogenic periostitis (acute, chronic): etiology, pathogenesis, clinical	3
	features, diagnosis, treatment, complications, prevention.	
5.	<b>Topic №5</b> . Acute odontogenic osteomyelitis: etiology, pathogenesis, classification.	2
	Modern osteomyelitis origin theories. Clinical sings, diagnostics, treatment (surgical,	3
	medication, physiotherapeutic), complications, prevention.	
6.	<b>Topic №6.</b> Chronic odontogenic osteomyelitis: clinical features, diagnosis, treatment,	2
	complications, prevention. Clinical features and treatment in patients with narcotic	3
	addiction.	
7.	<b>Topic №7.</b> Acute odontogenic maxillary sinusitis: etiology, pathogenesis,	2
	classification, clinical signs, diagnosis, prevention, treatment, complications. Plasty of	3
0	oro-antrum communication.	
8.	Topic No. Chronic odontogenic maxillary sinusitis: etiology, pathogenesis,	2
	classification, clinical signs, diagnosis, prevention, treatment, complications. Plasty of	3
	oro-antrum communication.	
9.	<b>Topic №9.</b> Surgical anatomy of cellular spaces of maxillofacial area. Ways of	
	spreading odontogenic infection spreading ways. Classification of phlegmon and	3
	abscesses of maxillofacial spaces. General clinical signs, diagnostic techniques and	
	integrated treatment.	

10. Topic №10. Lymphadenitis, adenophlegmon of maxillofacial areas: etiology, pathogenesis, clinical features, diagnosis, treatment, prevention. Inflammatory infiltrates in maxillaofacial area. Features of occurrence, localization, clinical sings, differential diagnosis, modern treatment methods.	3
11. <b>Topic №11.</b> Palate, infraorbital and zygomatic spaces absceses and phlegmons. Temporal, subtemporal and pterygopalatin spaces absceses and phlegmons. Phlegmon of the orbit. Topographic anatomy, etiology, pathogenesis, clinical signs, diagnosis, treatment, complications and prevention.	3
12. <b>Topic №12.</b> Buccal, parotid-masticatory spaces phlegmon: topographic anatomy, etiology, pathogenesis, clinical signs, diagnosis, treatment, complications and prevention.	3
13. <b>Topic №13.</b> Submental, submandibular, parapharyngeal and pterygomandibular spases phlegmons. Topographic anatomy, etiology, pathogenesis, clinical signs, diagnosis, treatment, complications and prevention.	3
14. <b>Topic №14.</b> Sublingual, lingual and jaw-lingual groove abscess. Oral cavity bottom phlegmon. Ludwig phlegmon. Topographic anatomy, etiology, pathogenesis, clinical signs, diagnosis, treatment, complications and prevention.	3
15. <b>Topic №15.</b> Specific inflammatory diseases of maxillofacial area: actinomycosis, tuberculosis, syphilis. Etiology, pathogenesis, clinical features, diagnostics, treatment, prevention. HIV infection / AIDS. Manifestations in the maxillofacial area.	3
16. <b>Topic №16.</b> Furuncles and facial carbuncles: etiology, pathogenesis, classification, clinical sings, diagnosis, treatment, complications and prevention. Erysipelas, nomi, hemodynamic necrosis. Diphtheria. Manifestations in the oral cavity. Clinical features, diagnostics, treatment, prevention	3
17. <b>Topic №17.</b> Inflammatory diseases complications of the maxillofacial area: mediasthenitis, sepsis, brain abscess, thrombosis of the facial veins and cavernous sinus, infection-toxic shock etc. Classification, pathogenesis, clinical signs, diagnosis, treatment, prognosis.	3
18. <b>Topic №18.</b> Arthritis and arthrosis of TMJ: classification, clinical signs, diagnosis, treatment, complications, prevention.	3
19. <b>Topic №19.</b> Acute sialoidenitis: classification, etiology, clinical features, diagnosis, treatment, complications, prevention.	3
Topic №20. Chronic sialoadenitis: classification, etiology, clinical signs, diagnosis, treatment, complications, prevention. Sialosis: classification, etiology, clinical signs, diagnosis, treatment, complications, prevention. Sialolithiasis: etiology, pathogenesis, clinical signs, diagnosis, treatment, complications, prevention. Summary.	4
Total	61

# 7. Laboratory lessons schedule – not provided during discipline studying

# 8. Self-study work schedule V semester

N₂	Topic	Hours	Type of Control
1.	Organization of dental surgery clinic.	4	Current control at practical classes
2.	Principles of asepsis in surgical dentistry.	4	Current control at practical classes
3.	Modern injection equipment in dentistry.	4	Current control at practical classes
4.	The peculiarities of local anaesthesia in patients with somatic diseases.	5	Current control at practical classes
5.	Intensive therapy, cardiopulmonary resuscitation in patient in oral Surgery.	5	Current control at practical classes

6.	Tooth extraction in patient's with cardiac diseases, blood system diseases and diabetes.	4	Current control at practical classes		
7.	X-Ray Examination Methods in patients with dental diseases.	4	Current control at practical classes		
8.	Equipment and instruments for atypical (surgical, open) teeth extraction.	4	Current control at practical classes		
9.	Complex treatment of tooth retention.	5	Current control at practical classes		
	Total hours: 39				

## Self-study work schedule VI semester

№	Topic	Hours	Type of control	
1.	Deontology in dentistry.	5	Current control at practical classes	
2.	Modern methods of periapical inflammation surgical treatment.	5	Current control at practical classes	
3.	Odontogenic sinusitis surgical care system.	5	Current control at practical classes	
4.	Jaw necrosis (radionecrosis, biophosphate necrosis).	5	Current control at practical classes	
5.	Maxillofacial area odontogenic abscesses and phlegmons etiology and pathogenesis modern view.	5	Current control at practical classes	
6.	Topographic anatomy of maxillofacial area. Basic principles of maxillofacial area drainage.	5	Current control at practical classes	
7.	Maxillo-facial area lymphadenitis manifestations in patients with specific diseases: tuberculosis, actinomycosis, syphilis, AIDS.	5	Current control at practical classes	
8.	Additional examination methods in patients with inflammatory diseases. Blood tests, immunograms.	5	Current control at practical classes	
9.	Modern medication therapy in patients with purulent - inflammatory diseases of MFA.	6	Current control at practical classes	
10.	Modern methods of salivary glands examination.	5	Current control at practical classes	
11.	Salivary glands systemic diseases.	5	Current control at practical classes	
12.	Anatomy and pathological anatomy of TMJ. Modern diagnosis and treatment methods of TMJ diseases.	5	Current control at practical classes	
13.	Physiotherapeutic methods in the complex treatment of MFA inflammatory diseases.	5	Current control at practical classes	
	Total hours: 66			

9. **Individual tasks** - are not included into the curriculum.

# 10. Tasks for independent work

## **Independent work of students includes:**

- abstracts of theoretical material, solution of situational tasks, control questions on relevant subjects of independent work, etc.;
  - creation of multimedia presentations on selected topics of independent work;
  - creation of poster presentations on selected topics of independent work;
  - writing a medical history according to selected nosologies;
  - preparation for classroom classes (practical);
  - performance of tasks in the academic discipline during the semester;
- work on individual topics of academic disciplines, which, according to the working curriculum of the discipline, are assigned to students for independent study;

- preparation for all types of control works;
- work in student scientific circles and centers, etc.;
- participation in the work of "round tables", etc.;
- participation in scientific and scientific-practical conferences, Olympiads, etc.;

In order to organize independent work at the department of surgical stomatology and maxillofacial surgery, the teachers conduct the following activities:

- group and individual consultations;
- interviews with students;
- systematic control over students' performance of tasks recommended for independent study;
- providing students with means for self-control (tests, packages of control questions and situational problems);
- analysis and evaluation of the student's work.

### 11. Teaching methods.

The educational process at the Department of Surgical Dentistry and Maxillofacial Surgery is organized according to the following normative documents:

- Law of Ukraine "On Higher Education" of 01.07.2014 №1556-VII;
- Decree of the Cabinet of Ministers of Ukraine dated 29.04.2015 №266 "On approval of the list of branches of knowledge and specialties under which the training for higher education is carried out";
- the Order of the Ministry of Education and Science of Ukraine No. 1151 dated 06.01. 2015 "On the peculiarities of introduction of a list of branches of knowledge and specialties, under which the training for higher education is carried out; approved by the Resolution of the Cabinet of Ministers of Ukraine dated 29.04.  $2015 \, \text{N}_{\text{2}}266$ ";
- Order of the rector of the LNMU named after Danylo Halytsky dated 02.06.2016 № 1604 "On approval of curricula";
- the provision on the organization of the educational process at the Lviv National Medical University named after Danylo Halytsky, approved by the Academic Council of the Danylo Halytsky LNMU on 23.06. 2021, Minutes No. 3-VR;
- the provision on criteria, regulations and evaluation of results of the educational process at the Lviv National Medical University named after Danylo Halytsky, approved by the Academic Council of the Danylo Halytsky LNMU on 21.02. 2018, Minutes No. 1-VR:
- Education-professional curriculum "Dentistry", second (masters) level of higher education, 221 dentistry, MES Ukraine Sertificate №1497026 valid until 01.07.2025;
- the provision on the curriculum of the discipline and methodological recommendations for it, CMC Danylo Halytsky LNMU 23.04.2015, Minutes №2;
- the curriculum of the discipline "surgical dentistry" for students of the III, IV and V years of the dental faculty.

Practical clinical sessions in the course of surgical dentistry and MFS are conducted in the groups of 13-15 people. The evaluation of initial level of knowledge of a student who is enrolled for studies at the Department of Surgical Dentistry involves assessment of the level of knowledge in anatomy, general and special physiology, pathological anatomy and physiology on the basis of fundamental training in the departments of the medical-biological and general clinical profiles.

At lectures and practical classes, the teachers cover the achievements of scientific and technological progress, medicine, in particular, surgical dentistry and MFS and their implementation into practice.

The lecture courses cover the main and most complex sections of surgical dentistry and MFS, including the problems of the interrelation of all sections of dentistry with the general pathology, ecology, etiology and pathogenesis of various dental and somatic diseases, nosological diagnostics, surgical and conservative treatment, prevention, social rehabilitation and expertise.

In order to master the manual skills of providing surgical dental care, along with the study of theoretical issues, students work out manipulations on phantoms and headforms; under supervision of the teacher they independently carry out examination of patients with different pathological processes of MFA that fall within the competence of surgical dentistry and MFS, independently study symptoms of surgical dental diseases, acquire skills in the diagnosis of maxillofacial disorders and diseases, their treatment, expertise and working rehabilitation.

#### Methodology of educational process in practical lesson on surgical dentistry:

#### 1. Preparatory stage, 20 min.

The teacher provides the rationale for the meaning of the lesson for further study of the discipline and

professional activities of the physician with the aim of motivating students for further educational activities. Students get acquainted with specific goals and plan of the lesson.

The procedure of standardized control of the initial level of student, discussion and answers to students' questions.

#### 2. The main stage, 40-85 min.

Students collect history and conduct an examination of the thematic patient. Students prepare a patient check-up plan, additional research methods, fill in the relevant medical documentation, work out techniques for conducting diagnostic manipulations and therapeutic measures, and train the practical skills relevant to the subject of the lesson.

#### 3. Final stage, 30 min.

The procedure of standardized final control test using individual test tasks and questions (10-15 min.), checking the work (5-10 min.). Assessment by the teacher of student's activity during the class, taking into account standardized final control test, analysis of student's progress, announcing the evaluation of each student's activity, and displaying it in the register of student attendance and progress.

The group monitor, at the same time, fills in the assessment and attendance register for students, the teacher verifies it with their signature.

The students are provided with brief overview of the topic of the next lesson and the methodical preparation for it.

The students have the opportunity to get acquainted with the list of practical skills they are to master on the third year. The descriptions of practical skills are placed on educational-methodical stands and on the department's website. The department has developed a form of control over the acquisition of practical skills, which is distributed among students at the beginning of the semester. During the practical classes, as well as at the end of the semester, the teacher marks the progress of the students' acquisition of listed practical skills.

Independent work of students is reflected in the educational-thematic plans, as well as in the methodical development of practical classes for students. Students have the opportunity to get acquainted with the basic and additional literature on discipline, to prepare orally, and also to write abstracts, etc.

The make-up sessions for practical (seminar) classes are carried out by the appointed teachers (on shift basis) as well as on an individual schedule. Schedules for the make-up sessions are available on the appropriate stands and the information website of the department. Students who have missed more than two practical classes are admitted to study with the permission of the Dean's Office of the Faculty of Dentistry, and also must make up for missed classes within the following two weeks. Control of the make-up classes is carried out in the special register with the sequential numbering and fixing the date of make-up session and the date of the missed class which corresponds to the schedule. All missed lectures are recorded in the registers, controled at practical classes in the form of oral and written interviews, as well as taken into account at the time of credits and exam assessment.

All classes and lectures are provided with appropriate methodical and illustrated material. Classes are conducted in accordance with the traditional methodology, with the use of test tasks, control assignments, oral answers etc. Phantoms and headform are also used extensively during the classes.

The teachers of the department have done a great job to develop methodical materials for the provision of educational process, materials for practical classes and lectures in the electronic version, which is available on the website of the Department of Surgical Dentistry and MFS, created a database of test tasks for current and final knowledge control. Also they provided visualization of algorithms for the implementation of practical skills with video presentations from the sections: "Propedeutics of surgical dentistry", "Inflammatory diseases of MFA".

Innovative methods and technologies used in the educational process

innovative methods and technologies used in the educational process			
Discipline	Edicational technologies and innovative teaching methods		
Surgical dentistry	- involvement of students into work with well-known medical databases		
	(ScienceDirect, PubMed, Panteleimon, etc.);		
	-interdisciplinary approach to the study of surgical dentistry - a constant emphasis		
	on the interconnections between basic medical disciplines and related dental		
	specialties;		
	- Involvement of students in assisting with surgical interventions, online video		
	broadcasting of surgical procedures with the simultaneous discussions and		
	comments of the manipulations;		
	- regular hospital rounds with students, examination of thematic patients and		
	discussion of clinical cases, motivation of students to compile algorithms of		
	diagnostic and treatment measures for different dental surgical pathology.		

#### 9. Control methods.

Control measures are a necessary element of feedback in the learning process. They determine the correspondence of the level of knowledge acquired by students with the requirements of the normative documents on higher education.

Control methods and assessment system are developed in accordance with the requirements of "Criteria, rules and procedures for evaluating the results of students' educational activities at the Danylo Halytsky LNMU, approved by the Academic Council of LNMU of 02/21/2018, protocol No. 1.

Control measures in the study of "Surgical dentistry" include current control and final control, which is called a semester test.

Before studying a new course, students have to take 'entrance control' test in order to determine the level of preparation of students to the discipline (based on the fundamentals of previous studies). Entrance control is carried out on the first lesson and is based on the assignments corresponding to the program of relevant discipline studied before. The results of the entrance control are analyzed at the department (chair) meetings and also involve the representatives of methodology committee as well as the teachers of the relevant discipline. According to the results of the entrance control test, students may be provided with individual assistance or with some measures of adjusting the educational process.

Current control is carried out on every practical lesson according to the specific goals of each topic. It is based on the comprehensive evaluation of the student's activity, which takes into account the entrance control test, the quality of practical work, the level of theoretical training, the level of performance in individual assignments according to the thematic plan and the results of the final control.

In the course of assessing the educational activity of students, the preference is given to standardized methods of control: test tasks, situational tasks, control questions, oral questioning, structured written work, structured control of practical skills in conditions that are close to real ones (algorithm -based).

Final control, which is a semester credit, is a form of summarizing control, which assesses the level of student solely on the basis of the results of certain types of work in practical classes. It is conducted in accordance with the curriculum in terms set by the schedule of the educational process and in the amount of educational material determined by the program of academic discipline.

Assessment procedure for the discipline of "Surgical Dentistry", presented by the two content modules, is rating-based and is made up of the sum of evaluation points of the current educational activity, which can be gained for theoretical knowledge and practical skills in accordance with the lists determined by the discipline program.

**Current control** is carried out during the training sessions and aims at checking students' acquisition of the material, the level of theoretical and practical training. Current control can be presented in the form of testing, solving situational problems, solving clinical situational problem, demonstration of practical skills or abilities, answers to standardized theoretical questions. Forms of assessment of the current educational activity are standardized and correspond to the standards of answers.

10.1. Assessment of current educational activity. Evaluation of current student's progress made on each practical lessons on the 4- point scale and recorded in the register of academic success.

Knowledge of students are evaluated both theoretical and practical training by the following criteria:

"Perfect" – the student perfectly mastered theoretical material, shows the deep and comprehensive knowledge of the relevant subject or discipline, the basic provision of the basic textbook and recommended literature, have the logical thinking and make the answer, freely use the acquired theoretical knowledge in the analysis of practical material, expresses his attitude to various problems, demonstrates the high level of practical skills;

"Good" – the student learned theoretical material good, has the main aspects of the basic textbook and recommended literature, the knowledge set reasonable; has the practical skills, expressed own views of the problem, but assume certain inaccuracies in the logic of the theoretical contents presentation or by the analysis of the practical contents;

"Satisfactory" – the student basically mastered the theoretical knowledge of the subject or discipline, oriented in the basic textbook and recommended literature, but unconvincingly answer, confuses the notions, additional questions arouse the student uncertainty or absence of stable knowledge, answering the practical questions reveals inaccuracies in knowledge, can not estimate the facts and events, link them to the future activities;

"Unsatisfactory" - the student has not mastered the subject (discipline) course material, does not know the scientific facts, definitions, hardly versed in the basic textbook and recommended literature, the scientific thinking is absent, practical skills are not formed.

#### **Evaluation criteria by types of control:**

#### **Evaluation criteria of the test task**

- "excellent" the student solved 95-100% of the proposed set of test tasks;
- "good" the student solved 80-94% of the proposed set of test tasks;
- "satisfactory" the student solved 60.5-79% of the proposed set of test tasks; "unsatisfactory" the student solved less than 60.5% of the proposed set of test tasks. Evaluation criteria of a package of open questions.

The assignment includes 5 open-ended questions on the topic of the practical session. The value of each separate question is 1 point, or 20%. The results of the answers are summed up and a score is given on a five-point scale: 5 "excellent" - 4.5-5 points; 4 "good" - 3.5-4 points; 3 "satisfactory" - 3 points; 2 "unsatisfactory" - 2 or less points.

Each of the questions is evaluated according to the following criteria:

1 point – the student flawlessly mastered the theoretical material of the lesson topic; answered the questions independently, competently and consistently with exhaustive completeness; demonstrates deep and comprehensive knowledge, logically constructs an answer, expresses his attitude to certain problems; is able to establish cause-and-effect relationships, logically and reasonably draw conclusions; answers the questions correctly, using the materials presented for independent work.

0.75 points - the student has well mastered the theoretical material of the subject of the lesson, presents it with arguments; discloses the main content of the educational material, gives incomplete definitions of concepts, allows minor violations in the sequence of the presentation of the material and inaccuracies in the use of scientific terms, vaguely formulates conclusions, expresses his thoughts on certain problems, but assumes certain errors in the logic of the presentation of the theoretical content;

0.5 points - the student has mainly mastered the theoretical material of the subject of the lesson, reveals the content of the educational material fragmentarily, shows the initial idea about the subject of study, makes significant mistakes when reproducing the main educational material, gives simple examples, gives unconvincing answers, confuses concepts.

0 points – the student has not mastered the educational material of the topic, does not know the basic definitions and concepts; gives the wrong answer to the question.

### Evaluation criteria of the situational problem

- "excellent" the student has deeply mastered the theoretical material of the lesson topic, knows how to connect theoretice, which allows him to solve situational problems of increased complexity.
- "good" the student has firmly mastered the theoretical material of the lesson topic, correctly applies theoretical knowledge when solving situational problems of medium difficulty.
- "satisfactory" the student has mastered only the basic material without details, solves only the easiest problems assumes inaccuracies, chooses insufficiently clear wording, violates the sequence in the presentation of the answer.
- "unsatisfactory" the student does not know a significant part of the theoretical material of the lesson topic, make significant mistakes, does not solve the situational problem.

#### Criteria for evaluating practical skills

- "excellent" the student fully possesses practical skills, knows how to connect theory with practice.
- "good" the student partly possesses practical skills, correctly applies theoretical provisions when solving practical tasks.
- "satisfactory" the student has only the mandatory minimum performance of the practical task, is familiar with the performance technique.
- "unsatisfactory" the student does not have a practical skill.

When using different methods of verification of learning results, their points are added to the arithmetic average.

#### Evaluation of self-made student work

Material for independent work of students, which is provided simultaneously with the practical classes and estimated during the current control of the theme on the appropriate practical classes. Self-made themes are evaluated and controled during the final control.

The final control - semester credit is performed to assess learning outcomes on a national scale and ECTS scale.

The students, who attended all the stipulated discipline curriculum classes and scored for current progress score not less than the minimum are allowed to the final control. For students, who missed classes, with the dean permission is permitted to fulfill academic debt to the fixed period within the term.

13. The semester credit is the form of final control, which is consist in the evaluation assess of the educational material mastering exclusively on the basis of the certain types of work realization at the practical classes.

The semester test performed at the end before the examinations. Credits accept teachers, who conducted practical classes in the group or hold lectures in the discipline.

A student is considered to be admitted to semester control if all kinds of work provided the curriculum and the work program have been made.

The results of students work evaluation during the semester should be documented (included in the academic journal, credit - examination sheet, student Gradebook). Performed by students during the semester control tests, individual tasks are kept at the department during the year.

**14.** In the educational process of University, the following grading scales are used: multimark (200 - point) scale, the traditional 4- point scale and ECST rating scale. The results are converted from one scale to another according to the following rules.

In evaluating the mastering of each theme for current educational student activity the score by the 4-point scale (traditional) are set. This takes into account all types of work, provided the curriculum. The student must obtain an assessment of each theme. The assessment's forms of current educational activity should include control of theoretical and practical training. Marks of traditional assessment scale are converted into the points.

The maximum number of points, that a student can collect for current educational activity at the subjects study is 200 points.

*The minimum number of points* that a student must collect for current educational activity for enrollment courses is 120 points.

*Calculating the number of points* is based on student evaluations received by traditional scale while learning subjects during the semester, by calculating the arithmetic mean rounded to two decimal places. The result value is converted into points by multi- scale as follows:

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

For convenience, a table converting 200 -point scale:

Table 1 Conversion of the average score for current activity in multimark scale for disciplines ending as a credit (differentiated credit)

	1
4-	200-
points	points
scale	scale
5	200
4.97	199
4.95	198
4.92	197
4.9	196
4.87	195
4.85	194
4.82	193
4.8	192
4.77	191
4.75	190
4.72	189
4.7	188
4.67	187
4.65	186
4.62	185
4.6	184
4.57	183
4.52	181
4.5	180
4.47	179

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

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

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

Evaluation of the disciplines (subjects) which the final control is the **test** is based solely on the results of current training and expressed by two points national scale: "Passed" or "Not passed". To enroll the student must receive for current training activities at least 60 % of the maximum amount of points in the discipline (120 points). Scores are ranked on a scale of discipline ECTS (Table 3) for the above scheme.

Grade F (unsatisfactory with required repeated course) put at the test or differential credit to students who attended all subject (discipline) classes, but did not reach the minimum number of points for current educational activity. These students are not obtained credit and are not allowed to pass examinations.

Scores of discipline for students, who successfully completed the program, converted into traditional 4-point scale by absolute criteria, which are listed in the table below:

Table 2

Discipline scores	4 – point scale
From 170 to 200 points	5
From 140 to 169 points	4
From 139 points to the minimal points number, which the student must score	3
Less then the minimal points number, which the student must score	2

Evaluation of ECTS to the traditional scale is not converted because the scale of ECTS and 4-point scale are independent.

Objectivity evaluation of educational activities of students tested statistically (correlation coefficient between ECTS assessment and evaluation on of national scale).

Scores of students enrolled in one specialty, given the number of points gained in the discipline ranked on a scale ECTS as follows:

Table 3

Evaluation of ECTS	Statistical index
A	The best 10 % students
В	The next 25 % students
С	The next 30 % students
D	The next 25 % students
Е	The last 10 % students

Ranking of assigning ratings of "A", "B", "C", "D", "E" held for the students of the course, who are studying for one specialty and successfully completed the study subjects. Students, who received estimates FX, F ( $\ll$ 2 $\ll$ 2) are not made to the list of students who ranked. Students with an estimate after repassing FX get automatically mark "E".

#### 15. Methodological support:

- notes, thematic plans of practical classes, independent work, lists of questions, tasks and cases for current, final and self-monitoring of students' knowledge and skills, lists and algorithms for performing practical skills;
- methodological guides for students of the 3rd year of the Faculty of Dentistry for practical classes in surgical dentistry;
- methodological guides for teachers of the 3rd year of the Faculty of Dentistry for practical classes in surgical dentistry;
- methodological guides for students of the 3rd year of the Faculty of Dentistry for independent work in surgical dentistry;
- videopresentations;

With the help of sponsorship was created and established the use of a local computer network and modern video equipment, which provides online broadcasting of surgical interventions in classrooms/ This

allows students to "virtually" be present in the operating room, discuss with teachers and surgeons interventions or other surgical manipulations, etc. Based on the video footage of surgical interventions, a video library was created for demonstration during the relevant thematic classes. The video library of the department also contains advertising films with the products of Septodont (France), Kolapan (Russia), Conmet (Russia), Geistlich (Switzerland), Synthes (Switzerland), Ihde Dental (Switzerland). ), "BTI" (Spain), etc., the demonstration of which expands students' imagination about modern technologies in surgical dental practice. Due to the cooperation with the Center for Medical 3D Diagnostics (Lviv), the use of the program for decoding radiographs and computer tomograms "Point Nix" (Korea) was introduced into the educational process, which will allow students to better navigate the issues of radiological diagnostics of various surgical dental pathologies. Employees of the department created and implemented in the educational process author's computer programs for diagnostics and planning of cystectomy operations and atypical removal of lower third molars "RTG ruler" and "Xray analyzer" for which received patents of Ukraine for inventions and acts of implementation in practical medicine.

A phantom class of the Department of Surgical Dentistry and MFS has been created, which is equipped with modern computer and video stuff for demonstration of live-surgery and thematic films. To demonstrate and practically master the skills of local anesthesia in the maxillofacial area and tooth extraction, the phantom class is equipped with phantoms of the head with replaceable jaw modules (4 pcs.), Models of skulls and jaws (6 pcs.), Sets of tools for tooth extraction, performing surgical interventions in the maxillofacial area.

To demonstrate and implement practical skills of treatment of traumatic injuries of MFA, the phantom class is equipped with tools and models for perfoming the technique of mono- and intermaxillary splinting, osteosynthesis of facial bones (3 models of the skull with imitation fractures of the upper jaw and NOE complex models with imitation of mandibular angle fractures, 45 models with imitation of mandibular symphysis fractures, 40 models with imitation of mandibular fractures of the mandible, 3 holders for fixing models to the work surface, Synbone, Switzerland).

In 2018, the department received a full-fledged resuscitation simulator with a control device (ONICO) for visualization and practice of emergency care skills.

Practical classes on "Surgical Dentistry" are provided with methodical and illustrative material, respectively. Visualization of practical skills algorithms is provided with video presentations.

## List of practical skills to the content module 1 "Propedeutics of surgical dentistry":

- 1. To work out the technique of examination and palpation of the maxillofacial area during the extraoral examination.
- 2. To work out the method of examination and palpation of the vestibulum of the oral cavity.
- 3. To work out the method of examination and palpation of the oral cavity.
- 4. To work out a survey method, percussion, determining the degree of mobility of teeth, depth of tooth-ashen pockets.
- 5. To work out the method of determining the degree of foramen the mouth.
- 6. Learn to fill in the required medical documentation.
- 7. Learn to write out referral for additional survey methods.
- 8. To work out the technique of preoperative preparation of the surgeon's hands according to modern methods.
- 9. To learn on phantom technique of antiseptic cleaning of the operational field.
- 10. To evaluate the general condition of patients. Identify risk groups for general and local anesthesia.
- 11. Determine the psycho-emotional status of patients.
- 12. Appoint an individual scheme of premedication, depending on the psycho-somatic state, the nature and extent of surgical intervention. Pick up doses of drugs.
- 13. To evaluate the effectiveness of the medical preoperative preparation of patients.
- 14. To master the standards of post-narcotic observation of a patient.
- 15. To work out on a phantom technique of non-injecting anesthesia by a chemical method.
- 16. To work out on phantom technique of carrying out non-injecting anesthesia by physical method.
- 17. To work on phantom technique of:

infiltration anesthesia of the skin;

infiltration anesthesia of subcutaneous fatty tissue;

infiltration anesthesia of the mucous membrane;

subperiosteal infiltration anesthesia;

intraligamental anesthesia;

intrapulpar anesthesia;

intraosseous anesthesia.

- 18. To work out on a phantom technique of conducting mandibular anesthesia by extraoral method.
- 19. To work out on a phantom technique of conducting of mandibular anaesthesia in an intraoral method (a finger and finger-less).

- 20. To work out on phantom technique of conduction of torusal anesthesia.
- 21. To work out on phantom technique of conducting of mental anesthesia by extraoral method.
- 22. To work out on phantom technique of conducting of mental anesthesia by an intraoral method.
- 23. To work out on phantom technique of conducting of lingual anesthesia.
- 24. To work out on a phantom technique of conduction of buccal anesthesia.
- 25. To be able to choose a local anesthetic, and determine the dose of the injection.
- 26. To be able to determine, by means of anatomical guidelines, the location of the anesthesia target point.
- 27. To work out on phantom technique of conducting infraorbital anesthesia by intra-and extraoral methods.
- 28. To work out on phantom technique of conduction of the tuberal anesthesia by intra-and extraoral methods.
- 29. To work on a phantom technique of conducting incisor anesthesia by intra-and extraoral methods.
- 30. To work on phantom technique of conduction of palatal anesthesia.
- 31. To be able to provide first aid for vascular damage during anesthesia.
- 32. To work out on phantom technique of conducting of the central conductive anesthesia to a round foramen by a submalar-pterygoid way.
- 33. To work out on phantom technique of carrying out of the central conductive anesthesia to a round foramen by a tuberal way.
- 34. To work out on phantom technique of carrying out of the central conductive anesthesia to a round foramen by a palatal way.
- 35. To work out on phantom technique of carrying out of the central conductive anesthesia to the oval foramen by the submalar-pterygoid way.
- 36. To work out on a phantom technique of carrying out of the central conducting anesthesia to the oval foramen by submalar way.
- 37. To work out on phantom technique of carrying out of the central conducting anesthesia to the oval foramen in a supramalar way.
- 38. Conduct on a phantom cardiopulmonary resuscitation (indirect heart massage and artificial respiration).
- 39. To make the most probable diagnosis of the complication of local anesthesia, to choose the appropriate treatment tactics.
- $40.\ Perform\ a\ differential\ diagnosis\ of\ complications\ of\ local\ an esthesia.$

Emergency medical assistance.

- 41. Perform the necessary medical manipulations (measure blood pressure and pulse, conduct auscultation of the heart and lungs, conduct venipuncture and connect a drip with the appropriate medications, administer medicines in person or sublingually, perform artificial respiration and indirect heart massage, fix the tongue).
- 42. Select instruments to extract different groups of teeth on the upper jaw.
- 43. Select instruments to extract different groups of teeth on the lower jaw.
- 44. Develop ways to hold tools to extract teeth.
- 45. To work on phantom stages of operation of removal of different groups of teeth on the upper jaw.
- 46. Work on phantom stages of the operation of removal of different groups of teeth on the lower jaw.
- 47. To work on a phantom technique of an operation of an atypical tooth extraction on the lower jaw.
- 48. To work on phantom technique of conducting an atypical tooth extraction on the upper jaw.
- 49. Make an algorithm for the preparation of tooth extraction in patients with various concomitant pathologies (diseases of the cardiovascular, respiratory, endocrine systems, gastrointestinal tract, neuropsychiatric sphere, hematologic, infectious diseases).
- 50. Assistance during the operation of atypical tooth extraction.
- 51. Make the most probable diagnosis of local complications of tooth extraction, choose treatment tactics.
- 52. Learn to read X-ray images with complicated deletions.
- 53. Learn to exercise on the phantom dislocation of the lower jaw.

## List of practical skills to the content module 2 "Inflammatory processes of the MFA":

- 1. To prepare a set of instruments for the operation of dissecting the hood in case of pericoronaritis and work it on a phantom.
- 2. To prepare a set of instruments for the operation of cutting the hood in case of pericoronitis and work it on a phantom.
- 3. To prepare a set of instruments and work on a phantom to remove the unerupted 8th tooth on the lower jaw.
- 4. To prepare a set of instruments and work on phantom removing retented 13.23 teeth.
- 5. To prepare a set of instruments for resection of the root of the tooth root and work it on a phantom.
- 6. To prepare a set of instruments for hemisection of the tooth and work it on a phantom.
- 7. To prepare a set of instruments for amputation of the root of a tooth and work it on a phantom.
- 8. To To prepare a set of instruments for crown-radial separation of a tooth and to work it on a phantom.
- 9. To prepare a set of instruments to replant the tooth and work it on a phantom.
- 10. To prepare a set of instruments and work out a phantom surgery tissue dissection in the periostitis.

- 11. To prepare a set of instruments and work out phantom sequestration surgery.
- 12. To prepare a set of instruments necessary for the opening and drainage of phlegmons of the submandibular space and to work on a phantom.
- 13. To prepare a set of instruments for the opening and drainage of phlegmon of the parotid masticatory area, pterygo-mandibular space, temporal area, and work on phantom.
- 14. To prepare a set of instruments for the opening and drainage of the abscess of the mandibular-lingual groove and to work it on a phantom.
- 15. To prepare a set of instruments for the opening and drainage of the phlegmon of the subtemporal area, the pterygo-palatal fossa (with different approaches) and to work on the phantom.
- 16. To prepare a set of instruments and work out phantom operations for the opening and drainage of inflammations of the fossa canina.
- 17. To prepare a set of instruments needed to open and drain the phlegmons of the orbit and work it on a phantom.
- 18. To prepare a set of instruments and work out phantom operation of the opening and drainage of inflammations of the maxillofacial area in case of furuncles.
- 19. To prepare a set of instruments and work out phantom operations for opening and drainage of inflammations of the maxillofacial area in case of carbuncles.
- 20. To be able to read and establish a preliminary diagnosis due to X-Ray results in case of periodontitis.
- 21. To be able to read and establish a preliminary diagnosis due to X-Ray results in case of osteomyelitis of the facial bones of the facial skeleton.
- 22. To be able to read and establish a preliminary diagnosis due to X-Ray results in case of maxillary sinusitis.
- 23. To be able to read and establish a preliminary diagnosis due to X-Ray results in case of diseases of the salivary glands.

## List of questions for self-control to the content module 1 "Propedeutics of surgical dentistry":

- 1. Principles of the organization of dental care to the population of Ukraine.
- 2. Organization of the operation of the surgical department (cabinet) of the dental clinic.
- 3. Features of the organization and equipment of specialized surgical dental care.
- 4. Sanitary-hygienic requirements to the surgical department (cabinet) of the dental clinic and in-patient department.
- 5. Equipment, medical documentation of the surgical office (department).
- 6. Subjective examination of a surgical dentist (complaints, history of the disease, history of life).
- 7. Method of examination of the general condition of a dental surgical patient.
- 8. Method of local examination (extraoral and intraoperative) of a dental surgical patient.
- 9. Additional methods of examination (electrodentometry, radiography, morphological, microbiological, functional research).
- 10. Indications for hospitalization of a dental surgical patients.
- 11. General principles and methods of asepsis.
- 12. Preparation of the rooms of the surgical stomatological department (cabinet) of the clinic and hospital.
- 13. Preparation of the surgeon's hands.
- 14. Preparation of the operational field.
- 15. Methods of cleaning of the instruments and dressing material (disinfection and sterilization), their storage.
- 16. General principles and methods of antiseptics.
- 17. Ways of transmission of infection in a dental surgical office
- 18. Prophylaxis of infection with HIV-infection, parotitis hepatitis.
- 19. AIDS: etiology and pathogenesis. Features of the clinical flow. Diagnosis, treatment.
- 20. The concept of pain, its types. Modern theories of pain.
- 21. The mechanism of perception and transmission of pain signal. Function of the endogenous pain-free system. Interaction of nociception of antinociceptive systems of the organism.
- 22. Components of human pain response. Factors that affect the sensation of pain.
- 23. History of the development of anesthesia.
- 24. Purpose and tasks of medical preoperative preparation of a patient. Premedication, its components. Medicinal schemes of premedication. Modern methods of assessing the effectiveness of premedication.
- 25. Potential of local anesthesia. Neuroleptanalgesia
- 26. Combination anesthesia. Ataralgezia Audio anesthesia. Acupuncture. Transcranial electroanalgesia. Percutaneous electroneurostimulation. Hypnotic effect.
- 27. General anesthesia in operations in the maxillofacial area. Narcotic disease, its types. Indications and contraindications to its conduct.
- 28. Preparation of the patient for anesthesia.
- 29. Advantages and disadvantages of narcosis. Modern Classifications of Anesthetic Risks.

- 30. Pharmacological preparations used for inhalation and non-inhalation anesthesia. Their features.
- 31. Stages of anesthesia.
- 32. Features of anesthesia in dentistry, maxillofacial surgery.
- 33. Complications of anesthesia. Follow-up standards for patients after anesthesia.
- 34. Clinical and pharmacological characteristics of anesthetics of the group of esters and vasoconstrictor drugs used with anesthetics for local anesthesia.
- 35. The division of anesthetics for duration of action.
- 36. Requirements to anesthetics for local anesthesia.
- 37. Forms of release of anesthetics, their synonyms and maximum doses.
- 38. Rules for the use of anesthetics in ampoules, vials and carpules.
- 39. Indications and contraindications to the use of anesthetics and vasoconstrictors in the presence of concomitant pathology.
- 40. Indications and contraindications to local anesthesia.
- 41. Classification of local anesthesia
- 42. Advantages and disadvantages of non-injecting and infiltration anesthesia.
- 43. Classification of mandibular conductive anesthesia.
- 44. Mandibular anesthesia: the place of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of anesthetic administered. Clinical effect of anesthesia. Zone of anesthesia.
- 45. Torusal anesthesia: the place of the injection of the needle, the direction and depth of the needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia..
- 46. Mental anesthesia: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 47. Anesthesia of the lingual nerve: the place of the injection of the needle, the direction and depth of the needle insertion, the target point of anesthesia, the amount of anesthetic administered. Clinical effect of anesthesia. Zone of anesthesia.
- 48. Anesthetic of the buccal nerve: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of administered anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 49. Anesthesia for Bersheh-Dubov-Uvarov. Indications and methods of conducting.
- 50. Local complications when performing anesthesia on the lower jaw, causes of their occurrence. Clinical manifestations.
- 51. Assistance to the patient in the event of complications.
- 52. Classification of conduction anesthesia on the upper jaw.
- 53. Infraorbital anesthesia: the place of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of administered anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 54. Tuberal anesthesia: the place of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of administered anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 55. Incisor anesthesia: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of administered anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 56. Palatal anesthesia: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of anesthetic administered. Clinical effect of anesthesia. Zone of anesthesia.
- 57. External methods of conducting anesthesia on the upper jaw. Indications to hold.
- 58. Anesthesia of the upper dental plexus (pleural anesthesia).
- 59. Local complications of anesthesia on the upper jaw, causes of their occurrence. Clinical manifestations.
- 60. Treatment of the patient in the case of complications.
- 61. Classification of central conductive anesthesia.
- 62. Central anesthesia to the round foramen: the place of the injection of the needle, the direction and depth of needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 63. Central anesthesia to the oval foramen: place of the injection of the needle direction and depth of needle insertion, the target point of anesthesia, the amount of injected anesthetic. Clinical effect of anesthesia. Zone of anesthesia.
- 64. Local complications when conducting central conductive anesthesia causes of their occurrence. Clinical manifestations.
- 64. Local complications in conducting central conductive anesthesia, causes of their occurrence. Clinical manifestations.

- 65. Classification of complications of local anesthetizing of maxillofacial area (general and local, directly during and after some time after anesthesia).
- 66. Fainting: Causes, Clinic, Diagnosis, Treatment and Prevention.
- 67. Collapse: Causes, Clinic, Diagnosis, Treatment, and Prevention.
- 68. Anaphylactic shock: causes, clinic, diagnosis, treatment and prevention
- 69. Anesthetic and vasoconstrictor intoxication: causes, clinic, diagnosis, treatment and prevention.
- 70. Idiosyncrazy: Causes, Clinic, Diagnosis, Treatment and Prevention.
- 71. Local complications (injuries of vessels, skin ischemia, diplopia, wounds of the nerve and nerve trunk, post-injection pain and edema, needles, post-injection necrosis of tissues, traumatic contracture): causes, clinic, diagnosis, treatment and prophylaxis.
- 72. Principles of cardiopulmonary resuscitation in the practice of a surgeon-dentist.
- 73. Indications and contraindications to tooth extraction.
- 74. Classification of instruments for tooth extraction on the lower jaw, signs of tongs and elevators.
- 75. Classification of instrumentation for the removal of teeth on the upper jaw, signs of tongs and elevators.
- 76. Position of the patient in the chair when removing the teeth on the upper jaw.
- 77. Position of the patient in the chair when removing the teeth on the lower jaw.
- 78. Position of the doctor in relation to the patient in the removal of teeth on the upper jaw.
- 79. Position of the physician in relation to the patient with the removal of teeth on the lower jaw.
- 80. Stages of the tooth extraction operation.
- 81. Methods of removing certain groups of teeth on the lower and upper jaw.
- 82. Features of removal of roots of teeth. Toolkit.
- 83. Indications for the operation of atypical tooth extraction.
- 84. The toolkit necessary for an operation of an atypical tooth removal.
- 85. Methods of atypical removal of the upper and lower jaw teeth.
- 86. Local complications during the operation of atypical tooth removal, causes of their occurrence, clinical manifestations, treatment and prevention.
- 87. Preparation for tooth extraction in patients with various concomitant pathologies (cardiovascular, respiratory, endocrine systems, gastrointestinal tract, neuropsychiatric, hematological, and infectious diseases).
- 88. Types of premedication before tooth extraction for different categories of patients.
- 89. General complications that occur during tooth extraction.
- 90. Types and term of post-extraction wound healing.
- 91. Tooth fracture or its root.
- 92. Fracture, dislocation and removal of adjacent tooth.
- 93. Mandibular fracture.
- 94. Fracture of the part of the alveolar process.
- 95. Fracture of the part of the tuber of upper jaw.
- 96. Dislocation of the lower jaw.
- 97. Damage to soft tissues.
- 98. Pushing a tooth or its root into soft tissues.
- 99. Perforation of the bottom of the maxillary sinus.
- 100. Bleeding after tooth extraction: its causes, methods of stopping, prophylaxis.
- 101. Alveolitis: etiology, treatment. Wound care in the postoperative period.
- 102. Socket pain: etiology, clinic, treatment.

#### List of questions for self-control to the content module 2 "Inflammatory processes of MFA":

- 1. Etiology, pathogenesis and classification of inflammatory processes in the maxillofacial area.
- 2. Chronic odontogenic inflammatory foci in patients with somatic local and systemic pathology. Tactics of the dentist.
- 3. Chronic odontogenic inflammatory foci in patients before and after operations on the abdominal cavity, chest. Tactics of the dentist.
- 4. Diseases of teeth eruption. Dystopia and retention. Clinic, diagnostics. Indications and techniques for removing teeth.
- 5. Perikoronarit. Causes, classification, clinic, diagnosis, methods of conservative and surgical treatment.
- 6. Acute periodontitis. Classification, clinic, diagnosis and treatment.
- 7. Chronic periodontitis. Classification. Clinic, diagnostics.
- 8. Chronic granulomatous periodontitis, clinic and diagnostics. Types of granules, the theory of the origin of the epithelium in granulomas.
- 9. Surgical methods of treatment of chronic periodontitis. Resection of the tops of the root. Indications, methods of execution, possible complications, their prevention.

- 10. Surgical methods of treatment of chronic periodontitis. Gemisection, amputation, replantation. Indication. Method of execution. Possible complications and their prevention.
- 11. Reproplation of the tooth: one-stage and postponed, indications and contraindications, procedure of surgery, complications. Types of joints of the root of the tooth with a pit.
- 12. Causes of exacerbations of chronic periodontitis, pathogenesis. Treatment, prevention of complications.
- 13. Periostitis of jaws: classification, etiology, pathogenesis, clinic, differential diagnostics.
- 14. Treatment of acute purulent odontogenic periostitis of the jaws.
- 15. Osteomyelitis of the jaw. Etiology, theory of pathogenesis, classification.
- 16. Odontogenic osteomyelitis of jaws. Acute stage. Clinic, diagnostics, treatment.
- 17. Odontogenic osteomyelitis of the jaw. Chronicle stage. Clinic, diagnostics. Conservative treatment. Sequester surgery. Indications, timing and methodology. Prevention of complications. 18. Features of the clinical flow of odontogenic osteomyelitis of the lower and upper jaws. Dependence on anatomical and topographical features. Complications of osteomyelitis.
- 19. Differential diagnostics of acute periodontitis, periostis and osteomyelitis of the jaws.
- 20. Features of clinical flow, diagnostics and treatment of neonotogenic acute osteomyelitis of the jaws.
- 21. Hematogenous acute osteomyelitis of the upper jaw: etiology, clinic, complications and treatment.
- 22. Odontogenic sinusitis. Etiology, classification, clinic, diagnostics.
- 23. Odontogenic sinusitis. Conservative and surgical treatment. Complications and their prevention. 24. Surgical anatomy of cellular spaces of maxillofacial area. Ways of spreading of the odontogenic infection.
- 25. Abscess and phlegmon of maxillofacial area. Inflammatory clinical signs, diagnostic techniques. 26. Abscess and phlegmon of maxillofacial area. Principles of integrated treatment.
- 27. Lymphadenitis of maxillofacial area: classification, clinic, differential diagnosis, treatment.
- 28. Phlegmon of the spurious and winged pit. Etiology, pathogenesis, clinic; diagnosis, treatment. 29. Phlegmon of the temporal area. Causes, Clinic, Diagnosis, Treatment.
- 30. Abscesses and phlegmons of the suborbital and zygomatic areas. Causes, clinic, diagnosis, treatment.
- 31. Abscess and phlegmon of submandibular cellular space. His surgical anatomy. Causes, clinic, diagnosis, treatment.
- 32. Abscess and phlegmon of pterygoid cellular space. Surgical anatomy, causes, clinic, diagnosis, treatment.
- 33. Abscess and phlegmon of a submassseteric cellular space. Surgical anatomy. Causes, clinic, diagnosis, treatment.
- 34. Abscess and phlegmon of the parotid masseteric area. Causes, surgical anatomy, clinic, diagnosis, treatment.
- 35. Abscess and phlegmon of the buccal area. Surgical anatomy, causes. Clinic, diagnostics, treatment.
- 36. Abscess and phlegmon of the retromandibular area. Surgical anatomy, causes, clinic, diagnosis, treatment.
- 37. Abscess and phlegmon of tongue. Causes, clinic, diagnosis, treatment.
- 38. Phlegmon of the bottom of the oral cavity. Surgical anatomy, causes, clinic, diagnosis, treatment.
- 39. Abscess of mandibular-lingval groove. Surgical anatomy, causes, clinic, diagnosis, treatment.
- 40. Gnizol-purulent-necrotic phlegmon of Zhansul-Ludwig. Surgical anatomy, causes, clinic, diagnosis, treatment.
- 41. Abscess and phlegmon of the peripheral cellular space. Surgical anatomy, causes, clinic, diagnosis, treatment
- 42. Odontogenic and neodontogenic phlegmon MFA: differential diagnosis, clinical features, treatment of complications.
- 43. Clinic, topographical anatomy and treatment of neck phlegmons.
- 44. General treatment of phlegmon MFA. Prescribe the necessary recipes.
- 45. Actinomycosis of maxillofacial area: clinic, differential diagnosis, treatment.
- 46. Syphilis of the maxillofacial area: clinic, differential diagnosis, treatment.
- 47. Tuberculosis of maxillofacial area: clinic, differential diagnosis, treatment.
- 48. HIV / AIDS. Manifestations in the maxillofacial area.
- 49. Furuncles and carbuncles of the maxillofacial area: classification, clinic, complications and treatment.
- 50. NOMA Etiology, pathogenesis, clinical picture, treatment. Differentiation diagnosis, complications.
- 51. Erysthypelas o face. Etiology, pathogenesis, clinical picture, treatment. Differential diagnostics, complications.
- 52. Diphtheria. Etiology, pathogenesis, clinical picture, treatment. Differential diagnostics, complications.
- 53. Odontogenic media stent: etiology, pathogenesis, clinical picture, diagnosis.
- 54. Differential diagnostics of odontogenic mediasthenitis, surgical and medication treatment.
- 55. Septicemia, an infectious and toxic shock. Etiology, clinic, differential diagnosis, treatment.
- 56. Thrombophlebitis of the vein of the face, thrombosis of the cavernous sinus. Etiology, clinic, differential diagnosis, treatment.
- 57. Odontogenic brain abscess, meningitis. Etiology, clinical picture, treatment.

- 58. Clinic, diagnostics and treatment of arthritis and arthrosis of the temporomandibular joint. Prescribe the necessary recipes.
- 59. Acute inflammation of the salivary glands: classification, clinical flow, treatment.
- 60. Stubborn disease: etiology, clinic, complications and treatment.
- 61. Gentzenberg pseudo-parotitis and parotitis.
- 62. Chronic inflammation of the salivary glands: classification, clinical flow, treatment.
- 63. Systemic diseases of the salivary glands: Mikulich's disease, Sjogren's syndrome.

#### 16. BASIC AND ADDITIONAL LITERATURE

#### Basic:

- 1. Oral and Maxillofacial Surgery: Textbook, Part 1, 2 / V. O. Malanchuk. Vinnytsia: Nova Knyha Publishers, 2011. 453p.
- 2. PETERSON'S PRINCIPLES OF ORAL AND MAXILLOFACIAL SURGERY Second Edition, 2004. 1502 p.
- 3. Principles of Dental Local Anaesthesia and Teeth Removal / Ya. E. Vares, R. Z. Ogonovsky, Ch. R. Pohranychna LNMU, 2007. 63p.
- 4. Atlas of Human Anatomy / F. Netter 2nd ed. New Jersey: ICON Learning Systems. 592 p.

#### Additional:

- 1. The AIDS booklet. Boston: WCB Mcgraw Hill, 1999. 70 p.
- 2. Contemporary Oral and Maxillofacial Surgery / J. P. Sapp, L. R. Eversole, G. P. Wysocki 2nd ed.- St. Louis: Mosby 2004. P. 88-90.
- 3. AIDS what every student needs to know / S. A. Rathus, S. Boughn. 2nd ed. Philadelphia: Harcourt Brace College Publish. 1994. 106 p.
- 4. Oral and Maxillofacial Surgery/ G.O. Kruger 6th ed. St. Louis: Mosby Company. 1984. P. 9-38.
- 5. Contemporary Oral and Maxillofacial Surgery / L. J. Peterson, E. Ellis, J. R. Hupp, M.R. Tucker 3rd ed. St. Louis: Mosby Year Book, Inc. 1998. P. 69-82.
- 6. Bauml, Philips R.W., Lund M.R. Texbook of Operative Dentistry. 3-rd ed.- Philadelphia: Saunders, 1995.-661p.
- 7. Kharkov L. V. Pediatric oral and maxillofacial surgery: a textbook for students of higher medical educational institutions of the III-IV levels of accreditation / L. V. Kharkov, L. M. Yakovenko, N. V. Kiselyova; ed. by L. V. Kharkov. Kyiv: AUS Medicine Publishing, 2015. 103 c.
- 8. Pohranychna, Ch. R. Infections of the maxillofacial area: guide of lectures on oral and maxillofacial surgery for the english-medium students of the 3rd year education at dentistry faculty (spring semester): methodological guide / Ch. R. Pohranychna, R. Z. Ogonovsky. Lviv, 2011.
- 9. Pohranychna, Ch. R. Maxillofacial oncology: guide of lectures on oral and maxillofacial surgery for the english-medium students of the 5th year education at dentistry faculty (autumn semester): methodological guide / Ch. R. Pohranychna, R. Z. Ogonovsky. Lviv, 2011.
- 10. Timofieiev O.O. Anesthesia in Oral and Maxillofacial Surgery / O.O. Timofieiev, I.I. Fesenko. Kyiv: OMF Publishing, 2016, 128 p.

#### 17. Informative sources:

- 1. Patients examination https://youtu.be/-AjoqLAE9Gk
- 2. Aseptics & antiseptics https://youtu.be/YeB2eKmvWM0
- 3. Anasthesia The Wand <a href="https://www.youtube.com/watch?v=Yq2_ynfLPeA">https://www.youtube.com/watch?v=Yq2_ynfLPeA</a>
- 4. Superior nerve block <a href="https://www.youtube.com/watch?v=zFndz48ojTE">https://www.youtube.com/watch?v=zFndz48ojTE</a>
- 5. Inferior nerve block <a href="https://www.youtube.com/watch?v=3_7BqHJCXsU">https://www.youtube.com/watch?v=3_7BqHJCXsU</a>
- 6. Inferior alveolar nerve block https://youtu.be/RHNGdq1mptI
- 7. Mental nerve block <a href="https://youtu.be/KBnGZmvxmbI">https://youtu.be/KBnGZmvxmbI</a>
- 8. Buccal anesthesia https://youtu.be/ibf9Wt1K1lw
- 9. Lingual block https://youtu.be/-4OolGGLh-g
- 10. Tuberal anesthesia <a href="https://www.youtube.com/watch?v=yzfQGWpTJco">https://www.youtube.com/watch?v=yzfQGWpTJco</a>
- 11. Infraorbital anesthesia <a href="https://www.youtube.com/watch?v=ud0jRB12eaM">https://www.youtube.com/watch?v=ud0jRB12eaM</a>
- 12. Naso-palatal nerve block <a href="https://www.youtube.com/watch?v=WjfkLy7QCD0">https://www.youtube.com/watch?v=WjfkLy7QCD0</a>
- 13. Major palatal nerve block <a href="https://www.youtube.com/watch?v=k5c0Oa">https://www.youtube.com/watch?v=k5c0Oa</a> izmE
- 14. Extraoral anesthesia methods https://www.youtube.com/watch?v=IB2kOzAHM 4
- 15. Local anesthesia complications <a href="https://www.youtube.com/watch?v=2mLY1pZ5Aa4">https://www.youtube.com/watch?v=2mLY1pZ5Aa4</a>
- 16. Tooth extraction remanent https://www.youtube.com/watch?v=Crfag75ztP4

- 17. Forceps for tooth extraction https://www.youtube.com/watch?v=K5BMFZI6ryY
- 18. Tooth extraction <a href="https://www.youtube.com/watch?v=6czvwyizvcY">https://www.youtube.com/watch?v=6czvwyizvcY</a>
- 19. Tooth extraction 2 <a href="https://www.youtube.com/watch?v=Ku4iWM4K-80">https://www.youtube.com/watch?v=Ku4iWM4K-80</a>
- 20. Typical tooth extraction https://www.youtube.com/watch?v=mdE7H8maXcY
- 21. Surgical tooth extraction <a href="https://www.youtube.com/watch?v=KXkqIr7YFU4">https://www.youtube.com/watch?v=KXkqIr7YFU4</a>
- 22. Tooth extraction complications <a href="https://www.youtube.com/watch?v=07osxy3BeaM">https://www.youtube.com/watch?v=07osxy3BeaM</a>
- 23. Acute pericoronitis <a href="https://www.youtube.com/watch?v=AlSGwsc8E8Y">https://www.youtube.com/watch?v=AlSGwsc8E8Y</a>
- 24. Chronic pericirinitis <a href="https://www.youtube.com/watch?v=3_xENPZNTV4">https://www.youtube.com/watch?v=3_xENPZNTV4</a>
- 25. Periodontitis <a href="https://www.youtube.com/watch?v=cSSSUwUh0Qo">https://www.youtube.com/watch?v=cSSSUwUh0Qo</a>
- 26. Actinomicosis <a href="https://www.youtube.com/watch?v=fCD1NfK8jRE">https://www.youtube.com/watch?v=fCD1NfK8jRE</a>
- 27. Syphilis https://www.youtube.com/watch?v=shiNHefM9Q4
- 28. HIV infection https://www.youtube.com/watch?v=01ryVpUTAV8
- 29. Periostotomy https://www.youtube.com/watch?v=SwwWMP9Zj1I
- 30. Palatal abscess draining <a href="https://www.youtube.com/watch?v=9CN5CMOaZeU">https://www.youtube.com/watch?v=9CN5CMOaZeU</a>
- 31. Submandibular phlegmone <a href="https://www.youtube.com/watch?v=IeK8cParDY0">https://www.youtube.com/watch?v=IeK8cParDY0</a>
- 32. Mediastenum <a href="https://www.youtube.com/watch?v=i7pYTIrVZ5g">https://www.youtube.com/watch?v=i7pYTIrVZ5g</a>
- 33. Sepsis https://www.youtube.com/watch?v=emOgJCoUy6Q
- 34. TMJ disorders <a href="https://www.slideshare.net/memoalawad/lecture-of-tmj-67508951">https://www.slideshare.net/memoalawad/lecture-of-tmj-67508951</a>
- 35. TMJ disorders treatment <a href="https://www.youtube.com/watch?v=Cj3GVRlrgEQ">https://www.youtube.com/watch?v=Cj3GVRlrgEQ</a>
- 36. Epidemic parotitis <a href="https://www.youtube.com/watch?v=hYSCn1SfeQI">https://www.youtube.com/watch?v=hYSCn1SfeQI</a>
- 37. Sialoadenitis treatment <a href="https://www.youtube.com/watch?v=ljM2JolMLA4">https://www.youtube.com/watch?v=ljM2JolMLA4</a>
- 38. Ranula treatment https://www.youtube.com/watch?v=5yC0E8WUv8I