

### WORK PROGRAM

### of the discipline

### "SIMULATION DENTISTRY: SURGICAL DENTISTRY"

Level of higher education: second (master's) Field of knowledge 22 "Health care" Specialty 221 "Dentistry"

Educational and professional program: "Dentistry"

Odesa 2023

The work program is based on the educational and professional program "Dentistry" for the training of specialists of the second (master's) level of higher education in the specialty 221 "Dentistry" of the field of knowledge 22 "Health Care", approved by the Academic Council of ONMedU (Minutes No. 8 of June 29, 2023).

Developers:

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The work program was approved at the meeting of the Department of Surgical Dentistry

Protocol № \_1\_\_ from 31.08.2023.

Head of the Department	Anatolii Gulyuk
Agreed with the guarantor of the EPP	Anatolii Gulyuk

Approved by the subject cycle methodical commission for dental disciplines of ONMedU

Protocol № \_\_\_\_ from 2023

Head of the Subject cycle methodical commission for dental disciplines of ONMedU Volodymyr Kryklias

Reviewed and approved at the meeting of the department

Protocol № \_\_\_\_ from "\_\_\_\_" \_\_\_\_ 20\_\_ p.

Head of the Department

(signature) (name)

Reviewed and approved at the meeting of the department

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Head of the Department

(signature) (first name) (last name)

1. The description of the discipline:

indicators	Field of knowledge, specialty, specialization, level of higher education	Characteristics of the academic discipline
Total number:	Branch of knowledge	Full-time form of education
Credit: 7	22 "Health care"	Mandatory discipline
		Year of preparation 5
Hours: 210	Specialty	Teaching (0 years)
	221 "the Stomatology"	Seminar (0 years)
		Practical (0 years)
	Level of higher education	Laboratory (0 years)
		Simulation dentistry (126 hours)
	second (master)	Independent work (84 years)
		individual tasks (0 years)
		Form of final control – diphzalyk

## 2. The purpose and objectives of the discipline, competence, program results of training

**The purpose of** the discipline - improvement of special (professional) competencies acquired in the study of the discipline "surgical dentistry" by repeating theoretical knowledge and practicing practical skills on phantoms and simulators, namely:

- -formation of the necessary volume of theoretical knowledge in the specialty,
- -formation of a qualified doctor who is able to successfully solve their professional tasks,
- -mastering modern technical and auxiliary methods and methods of diagnosis and treatment.
- At the end of the procedure, the dentist should have the following professional competencies:
- -ability and willingness to analyze the problem, to use in practice the methods worked out,
- -ability to conduct examination of the patient, study of leading syndromes and symptoms in surgical dentistry, to justify and formulate a preliminary diagnosis
- -ability to analyze the results of the survey and conduct differential diagnosis, -to make a final diagnosis of the main diseases,

-to determine the principles of complex treatment in the clinic of surgical dentistry,

**Training** discipline "surgical dentistry" is: To form the applicants professional skills and skills of performing professional actions, the ability to conduct examination of the patient, the study of leading syndromes and symptoms in surgical dentistry, to justify and formulate a preliminary diagnosis; The ability to analyze the results of the examination and conduct differential diagnosis, make a final diagnosis of major diseases, identify and identify the manifestations of somatic diseases in the oral cavity, determine the principles of complex treatment in the clinic of surgical dentistry, identify various clinical options and complications of the most common surgical dental diseases.

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

### General (CP):

GC3 . Ability to apply knowledge in practical activities.

GC 6. Skills in the use of information communication technologies.

GC 8 . Ability to adapt and act in a new situation..

GC 9. Ability to identify, put and solve problems.

The ability to be critical and self-critical.

GC 11 ability to work in a team.

### Special competences of the specialty (SC):

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

SC 2. Ability to interpret the result of laboratory and instrumental studies.

SC 3. Ability to diagnose: Determine the previous, clinical, final, concomitant diagnosis, immediate conditions.

SC 5. Ability to design the process of medical care: To determine the approaches, plan, types and principles of treatment of diseases of organs and tissues of the oral cavity and maxillofacial area.

SC 8. Ability to perform medical and dental manipulations.

SC 9, the ability to treat major diseases of organs and tissues

oral cavity and maxillofacial area.

### Program learning outcomes (PLO)

**PLO** 1.identify and identify leading clinical symptoms and syndromes (list 1); according to standard methods, using preliminary data of the patient's history, data of the patient's examination, knowledge of the person, his organs and systems, to establish a probable nosological or syndromic preliminary clinical diagnosis of dental disease (according to the list 2)

**PLO** 21perform medical manipulations on the basis of a preliminary and/or final clinical diagnosis (on lists 2, 2.2) for different segments of the population under different conditions (on the list 6).

**PLO** 22.perform medical dental manipulations on the basis of a preliminary and/or final clinical diagnosis (on the lists 2.2.1) for different segments of the population and under different conditions (on the list 7).

PLO 23. Perform manipulations of emergency medical care,

using standard schemes, under any circumstances based on an emergency diagnosis (list 4) in limited time (lists 6, 7).

As a result of studying the discipline, the applicant for higher education must

Know:

- principles of examination of patients by a dentist: the value of special and auxiliary methods of examination for differential diagnosis of dental diseases
- etiology and pathogenesis of major surgical dental diseases, their impact on the organs and systems of the human body, clinical manifestations of dental pathology of the oral cavity and indications for the use of various methods of treatment in surgical dentistry;
- mastering the methods of tooth extraction, taking into account the anatomical conditions, structure and mechanism of action of tools.
- the main stages and methods of dental operations, aseptics, principles and methods of anesthesiology, general and local anesthesia
- prevention, clinic and treatment of inflammatory processes of maxillofacial area, diseases of the temporal-mandibular joints, tooth injuries, jaws, as well as gunshot, thermal, chemical, radiation, combined damage to the face, mouth and neck, dental diseases;
- modern ideas about the biological essence of neoplasms, their features, prevention, diagnosis, treatment principle, the task of the dentist in the system of organization of anti-tumor service, the principles of oncological alertness and the method of dispensation of oncostomatological patients.;
- Principles of examination, diagnosis and complex treatment, prevention of toothjaw deformations, the volume of treatment in plastic surgery of maxillofacial area, expected results of such operations, methods of operations developed at the Department of surgical Dentistry ONMedU;

to be able:

- conduct a survey of the maxillofacial area, including: examination of soft facial tissues, temporomandibular joints, salivary glands, regional lymphatic system, analysis of inspection, panoramic, sighting dental and control radiographs, tomograms,;
- Master the main dental manipulations and diagnostic methods in patients with surgical dental diseases for diagnosis and selection of the correct method of treatment according to the list of OPP graduate of the Faculty of Dentistry in the specialty "Dentistry";
- develop a plan and tactics for the treatment of maxillofacial diseases;
- establish a primary (preliminary) diagnosis based on the analysis of the obtained results and determine the indications for dental interventions;
- to carry out organizational and methodological work;
- to carry out sanitary and educational work among the population;
- follow the rules of labor protection and safety.

### 3. WHAT IS THE MAIN PURPOSE OF THE STUDY

### Theme 1. Local anesthesia in dentistry

Infiltration (terminal) anesthesia for surgical interventions on soft tissues and alveolar sprouts. Indications and contraindications for use.

Anesthesia with surgical interventions on the upper jaw. Providnykovye anesthesia. Method of blocking the II branch of the trigeminal nerve near the round

opening, near the sole opening, the upper jaw hump, large palate and incisor opening. Internal and external ways. Indications and contraindications for use. Errors, complications, their prevention and treatment.

Anesthesia with surgical interventions on the lower jaw. Regional (trunk) anesthesia. Method of exclusion of the IIIbranch of the trigeminal nerve near the oval opening, at the entrance to the lower jaw canal (mandybular and torus anesthesia), near the mental opening. Internal and external methods of anesthesia. Indications and contraindications for use. Errors, complications, their prevention and treatment.

Combination of conducting and infiltration anesthesia with surgical interventions on the maxillofacial area, tooth extraction operations. Contraindications to the use of local anesthesia.

#### Theme 2. Simple, complex, atypical removal of teeth.

Typical tooth extraction: Tools for tooth extraction. Types of forceps, elevators, their structure, mechanism of work, purpose. Removal of teeth by tongs. Separate stages of tooth extraction by tongs. Features of removal of individual groups of teeth and roots. Technique and mechanics of the application of elevators of different types. Choice of access during the typical tooth extraction in the front and side sections of the upper and lower jaws. Technique to remove the third large root tooth on the lower jaw with incomplete eruption or incorrect position.

Healing the wound after a typical tooth extraction.

Atypical tooth removal: Indications, methods, anesthesia, tools.

Treatment of the wound after tooth extraction and care for it. Features of healing the alveoli. Indications for use and technique of alveolectomy with the help of a boron machine.

Complications during the removal of teeth and roots. Complications after tooth extraction.

Dystopia of teeth. Retension and inclusion of teeth. Difficulty teething, causes. Methods of surgical intervention in dystopia and dental retensiation.

Perikoronit: Classification, clinic, diagnosis, treatment.

## Theme 3. Odontogenic inflammatory processes of soft and bone tissues of the maxillofacial area

Periodontitis, periostitis, osteomyelitis of jaws, abscesses and phlegmon of soft tissues. Surgical treatment, its purpose. Techniques of operational access. Disclosure of periodontal abscess.

**4. What** is the main purpose of the study? Look at the typical places of fractures. The condition of the teeth in the crevice of the fracture of the jaw. Indications for removal of these teeth. Intra-articular fractures, fractures with displacements of the head of the jaw.

Principles of treatment of fractures of the facial skull bones – reposition and fixation of fragments, immobilization of jaws,

*Treatment of fractures of the lower jaw.* Providing first aid. Reposition the wreckage. Temporary (transport) immobilization of the jaw, indications, means. Medical immobilization. Application of individual and standard tires. Binding tire bracket. Tires with hook and jaw-hook for repositioning and fixing debris and jaw immobilization. Systems of tires S.Tigerstedt and others. Methods and techniques of splinting (tires Tigerstedt and others). Indications for the use of individual (orthopedic) tires and laboratory devices.

*Treatment of fractures of the upper jaw, middle zone of the face.* Temporary and transport immobilization of the upper jaw. Ways to reposition and fix the debris: Dental tires, tires with external fastening. Osteosynthesis and compression osteosynthesis: Wire seam, hairpin, bone plates with screws, other methods. Timing of healing, consequences.

*Fractures of the cheekbones and arc, the cheekbones complex.* Classification, diagnosis, clinical picture. Features of treatment. Conservative, surgical methods of repositioning and fixing the fragments; evidence, essence. Traumatic sinusitis. Restoration of the orbit.

*Fractures of bones and damage to the cartilage of the nose.* Diagnosis, clinic, treatment. Front and back tamponade of nasal passages.

#### Number of hours Name that Including everyth SRS ing lectur semi practhe labthat's nars thorney es it 1. What are the main topics of the study 70 42 28 Methods of infiltration and peripheral conduction anesthesia during operations on the upper jaw: Sharp, tuberous, palatinal, infraorbital. Methods of infiltration and peripheral wire-conducting anesthesia in operations on the lower jaw: Mandibular mental, torus. Theme 2. Method of operation removal of 76 48 28 incisors, fangs and their roots on the lower jaw Method of operation removal of incisors, fangs and their roots on the upper jaw. Method of operation removal of premolars, molars and their roots on the upper jaw. Method of operation removal of premolars, molars and their roots on the lower jaw. Diseases of teething. Theme (In Ukrainian) 32 18 14 3. Odontogenic inflammatory processes of soft and bone tissues of maxillofacial area periodontitis, periostitis. osteomyelitis of jaws, abscesses and Surgical phlegmon of soft tissues. treatment, its purpose. Techniques of operational access. Disclosure of periodontal abscess. Chapter 4: The bones of the face. 32 18 14 Fractures of the upper jaw. Fractures of

### 4. The structure of the academic discipline

the lower jaw. treatment				
All hours	210		126	84

## 5.topics of lectures and practical classes

**5.1Lecture** classes are not provided

## 5.2. What is the main point of the study

no.	Theme	Number of hours
1	Theme 1. Practical training 1. Local anesthesia in the treatment of dental diseases:	6
	<ul> <li>application anesthesia: drugs, tools, methods of conducting</li> <li>infiltration anesthesia - drugs, tools, methods of conducting</li> </ul>	
2	Theme 1. Practical training 2. Local anesthesia in the treatment of dental	
	diseases:	
	- peripheral conduction anesthesia with interventions on the upper jaw - drugs, tools, methods of conducting	6
3	Theme 1. Practical training 3. Local anesthesia in the treatment of dental diseases: - peripheral conduction anesthesia for interventions on the lower jaw -	6
	drugs, tools, methods of conducting	
4	Theme 1. Practical training 4. Local anesthesia in the treatment of dental diseases by various methods:	6
	- central conduction anesthesia on the upper and lower jaw (drugs, tools, methods of conducting)	
5	Theme 1. Practical training 5. Local anesthesia in the treatment of dental diseases by various methods in children of different ages (application, infiltration anesthesia). Anesthetics, tools. Methods of carrying out and doses of drugs depending on the age of the child	6
6	Theme 1. Practical training 6. Local anesthesia in the treatment of dental diseases by various methods in children of different ages: Peripheral conduction anesthesia on the upper and lower jaw. Anesthetics, tools. Methods of carrying out and doses of drugs depending on the age of the child.	6
7	Theme 1. Practical training 7. Local anesthesia in the treatment of dental diseases by various methods in children of different ages: Central conduction anesthesia on the upper and lower jaw. Anesthetics, tools. Methods of carrying out and doses of drugs depending on the age of the child.	6
8	Theme 2. Practical training 8. Typical tooth extraction on the upper jaw in adults. Tools. Stages of tooth extraction. Features of removal of different groups of teeth on the upper jaw. Anatomy of the roots of teeth of different groups on the upper jaw.	6
9	Theme 2. Practical training 9-10. Typical tooth extraction on the lower jaw	12

	Everything	126
18	Theme 4. Practical training 21. Stop bleeding after tooth extraction (from soft tissues, bone tissue, teeth alveoli. Surgical treatment of wounds of soft facial tissues (cut, torn, scarred, colt, bleached, in the same anatomical area. Tools. Строки. Features of the conduct in adults and children.	6
17	Theme 4. Practical training 19. Carrying out ligature binding of teeth at fractures of jaws. Temporary immobilization for fractures of the jaws. Manufacture and imposition of different types of tires for fractures of teeth, alveolar process and jaws. Features of conducting in adults and children of different ages.	6
16	Theme 4. Practical training 18. The lower jaw dislocation. Front dislocation, rear dislocation. One-sided dislocation, two-sided dislocation, "fresh" dislocation. Old wines. Technique of dextering and fixing the jaws when dislocation.	6
15	Theme 31. Practical training 18. Alveolotomy, curettage of the tooth hole, curettage of periodontal pockets (closed, open). Periostomia. Diathermocoagulation . Methods of conducting in adults and children of different ages. Incision and excision of the hood at pericoronaritis.	6
14	Theme 3. Practical training 17. Tooth-saving surgical interventions in periodontitis. Cystotomy in adults and children of different age groups.	6
13	Theme 3. Practical training 16. Odontogenic inflammatory processes of soft and bone tissues of maxillofacial area periodontitis, periostitis, osteomyelitis of jaws, abscesses and phlegmon of soft tissues. Surgical treatment, its purpose. Techniques of operational access. Disclosure of periodontal abscess.	6
12	Theme 2. Practical training 15. Atypical removal of teeth on the upper and lower jaw in adults and children of different age groups. Tools, anesthesia. Methods of atypical removal of different groups of teeth.	6
11	Theme 2. Practical training 13-14. Typical tooth extraction on the lower jaw in children in a temporary, mixed and permanent bite, depending on the age of the child Tools. Stages of tooth extraction. Features of removal of different groups of teeth on the lower jaw in children of different ages. Anatomy of the roots of teeth of different groups on the lower jaw in children of different ages.	12
10	Theme 2. Practical training 11-12. Typical removal of teeth on the upper jaw in children in a temporary, mixed and constant bite, depending on the age of the child. Tools. Stages of tooth extraction. Features of removal of different groups of teeth on the upper jaw in children of different ages. Anatomy of the roots of teeth of different groups on the upper jaw in children of different ages. (In Ukrainian)	12
	of adults. Tools. Stages of tooth extraction. Features of removal of different groups of teeth on the upper jaw. Anatomy of the roots of teeth of different groups on the upper jaw.	

### 5.3. Laboratory classes are not provided.

### 6.independent work

N⁰	Theme name	K-bone hours
1	Warking out the method of enerthesis on the unner iour	
1	Working out the method of anesthesia on the upper jaw	14
2	Working out the method of anesthesia on the lower jaw	14
3	Working out of the technique of tooth extraction on the upper jaw	14
4	Working out of the technique of tooth extraction on the lower jaw	14
5	Development of the method of periodontal abscess disclosure	14
6	Development of the technique of ligature binding of teeth	14
	Everything	84

### 7. Methods of teaching

**Practical classes:** Conversation, role-playing games, solving clinical situational problems, practicing the skills of the patient's examination, practicing the skills of performing manipulations on the list of 5, instructing and practicing skills on simulation models, training exercises on differential diagnosis of the most common diseases in children.

**Independent work:** Independent work with recommended basic and additional literature, with electronic information resources, independent work with the bank of test tasks step-2, independent mastering of algorithms for communication with patients.

## 8. Forms of control and evaluation methods (including criteria for evaluating learning outcomes)

**Current control:** Oral questioning, testing, evaluation of practical skills, evaluation of communication skills during role play, solving situational clinical tasks, assessment of activity at the lesson.

### Assessment of current educational activities in a practical lesson:

- 1. Assessment of theoretical knowledge on the subject of the lesson:
  - methods: survey, solution of situational clinical problem
  - the maximum score is 5, the minimum score is 3, the unsatisfactory score IS 2.
- 2. Assessment of practical skills and manipulations on the topic of the lesson:
  - methods: assessment of the correctness of the implementation of practical skills
  - the maximum score is 5, the minimum score is 3, the unsatisfactory score IS 2.

The evaluation for one practical lesson is arithmetic average for all components and can only have a whole amount (5, 4, 3, 2), which is rounded by the method of statistics.

### Criteria for current assessment in a practical lesson

Evaluation	Evaluation criteria

«5»	The applicant is fluent in the material, takes an active part in the discussion and solution of the situational clinical task, confidently demonstrates practical skills during the examination of a sick child and the interpretation of clinical, laboratory and instrumental studies data, expresses his opinion on the topic of the lesson, demonstrates clinical thinking.
«4»	The applicant is a good owner of the material, participates in the discussion and solution of situational clinical problem, demonstrates practical skills during the examination of a sick child and the interpretation of clinical, laboratory and instrumental studies data with some errors, expresses his opinion on the topic of the lesson, demonstrates clinical thinking.
«3»	The applicant does not have enough knowledge of the material, is uncertain involved in the discussion and solution of the situational clinical problem, demonstrates practical skills during the examination of a sick child and the interpretation of clinical, laboratory and instrumental studies with significant errors.
«2»	The applicant does not own the material, does not participate in the discussion and solution of situational clinical problem, does not demonstrate practical skills during the examination of a sick child and the interpretation of clinical, laboratory and instrumental studies data.

### 10. What are the most practical methods of the study

- The working program of the discipline
- SILABUS
- Methodological developments for practical classes
- Methodological recommendations for independent work of higher education applicants
- Multimedia presentations
- Clinical tasks
- Electronic bank of test tasks for units of discipline

# 11. The list of practical skills that must be mastered applicants for higher education

1. alveolotomia2

. production of temporary tires and splinting at fractures of teeth, alveolar processes and jaws3

. dislocation of the dislocation of the lower jaw 4

. local anesthesia in the treatment of dental diseases by various methods (applicative, infiltration, conductive)

5. tooth-saving surgical interventions in periodontics6

. stop bleeding after tooth extraction 7

- . peristotomia8
- . carrying out ligature binding of teeth 9

. disclosure of periodontal absces10

incision and excision of the hood at perikoronarities11

. temporary immobilization for fractures of jaws 12

. (In Ukrainian) typical and atypical removal of temporary and permanent teeth 13 cystomia14

. surgical treatment of wounds of soft tissues of the face within one anatomical area

### **12.Suggested literature**

### Main list

- 1. Запорожан В.М., Тарабрін О.О.. Симуляційна медицина. Досвід. Здобуття. Перспективи. Практичний порадник. Суми: ПФ «Видавництво «Університетська книга». 2018,240 с.
- Стоматологія : підручник : У 2 кн. Кн. 1. / М.М. Рожко, З.Б. Попович,В.Д. Куроєдова та ін.; за ред. проф. М.М. Рожка. К. : ВСВ "Медицина", 2013. 872 с.
- Стоматологія : у 2 кн. : підручник. Кн. 2 / М.М. Рожко, І.І. Кириленко, О.Г. Денисенко та ін. ; за ред. М.М. Рожка. — 2-е вид. — К. : ВСВ «Медицина», 2018. — 992 с.
- 4. Челюстно-лицевая хирургия и хирургическая стоматология : учебник : в 2 кн. Кн. 1 / А. А. Тимофеев. К. : ВСИ «Медицина», 2020. 992 с.
- 5. Operative Oral and Maxillofacial Surgery. Edited By John D. Langdon, Mohan F. Patel, Robert Ord, Peter A. Brennan. Copyright Year 2017.
- Contemporary Oral and Maxillofacial Surgery, 6e Hardcover 19 April 2013 by James R. Hupp DMD MD JD MBA (Author), Myron R. Tucker DDS (Author), & 1 More
- Manual of Minor Oral Surgery for the General Dentist, 2nd Edition Pushkar Mehra, Richard D'Innocenzo ISBN: 978-1-118-43215-0 August 2015 Wiley-Blackwell 312 Pages

8.TEXTBOOK OF ORAL AND MAXILLOFACIAL SURGERY -Borle ISBN 9789351520092. Edition 1/ Publish Year 2014 Pages 830.

9.. Advanced Oral and Maxillofacial Implantology Publication Date: March 2020. Status: Available 378 pages.

### **13.Internet recourses**

1.Державний експертний центр MO3 України http://www.dec.gov.ua/index[.php/ua

2.Національна медична наукова бібліотека України http\library.gov.ua\

3.Національна бібліотека України ім.В.І.Вернадського http//www.nbuv.gov.ua/o