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FACULTY OF DENTISTRY SYLLABUS 0911.1 DENTISTRY DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY AND ORAL IMPLANTOLOGY *ARSENIE GUȚAN*

APPROVED at the meeting of the Committee for Quality Assurance and Curriculum Evaluation, Faculty of Dentistry Minutes no. <u>3</u> from <u>16.</u> 02. 2018

Chairwoman of the Committee, PhD MD, associate professor Stepco Elena APPROVED at the meeting of the Faculty Council, Faculty of Dentistry Minutes no. <u>6</u> from <u>20.02</u> <u>2017</u> Dean of the faculty PhD Dearsociate professor Ciobanu Sergiu Council, Faculty

APPROVED at the Meeting of the Department of Oral and Maxillofacial Surgery and Oral Implantology Asenie Guțan Minutes no. 2 of 23. 40. 2018

Head of the Department PhD MD, associate professor

Chele Nicolae

CURRICULUM

SUBJECT: INFECTIONS IN OMF REGION

Integrated studies

Course type: Compulsory



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I. PRELIMINARY

General presentation of the discipline: the place and role of the discipline in the formation of the specific competences for the vocational / specialty training program

Infections in the oro-maxillo-facial region are medical and surgical emergencies and treatment should be early and complex (both medically and surgically). The "Infections in the OMF Region" course consists of two main parts: odontogenic infections, which are concerned with the prevention, diagnosis and medical-surgical treatment of dentoparadontal infections, and the second part with nonodontogenic infections, which includes the diagnosis and treatment of inflammatory diseases of salivary glands, maxillary sinuses, regional lymph nodes, oro-maxillo-facial soft parts, etc. The course "Infections in the OMF region" is an integral part of oro-maxillofacial surgery on the one hand and dentistry on the other.

Knowing the etiology, pathogenesis and evolution of the odontogenic infection is important in preventing and stopping of development of the pathology at the early stages. Drainage is done through cutaneous incisions.

When selecting the incision site, it must be taken into account: the affected anatomical spaces, the eventual evolution in neighboring spaces, the vital structures at this level, possible postoperative sequelae etc. All these require the study of the particularities of the oro-maxillo-facial surgical anatomy and of the basic principles in the surgical treatment of OMF infections. The basic steps in examining patients and the clinical and paraclinical examination options described in this section are aimed at developing the clinical thinking of students in order to establish a diagnostic and treatment plan. The last one mentioned represents an essential step in training the future specialists.

The ability to discuss with the patient for the formation of the observation sheet or during wound dressing, prepares the student to develop medical deontology - doctor and patient. The doctor's behaviour in the cabinet or the department of oral and maxillo-facial surgery is one of the bases for the development of future dental specialists aiming at correct work and decreasing morbidity and mortality.

Mission of the curriculum (aim) in vocational training

One of the main objectives of OMF infection is the study of the etiology and pathogenesis of inflammatory affections in the oro-maxilo-facial region.



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The second objective is to acquire the specific clinical evolution of the various inflammatory pathologies of the oro-maxilo-facial territory depending on the topographic anatomy and the severity of the general condition. The third objective is to acquire the various methods of diagnosing and treating the patient with infections in the oro-maxilo-facial region. The most important matter being the development of clinical judgment which will help in their individual work.

- Teaching Language: Romanian and English.
- *Beneficiaries*: third year students, Stomatology Faculty, Dentistry specialty.

The code		S.06.O.066.		
Name:		Infections in OMF region		
Responsabili de disciplină		Olga Procopenco, PhD, MD, assoc.prof. Sofia Lehtman, PhD, MD, assoc.prof. Chele Nicolae, PhD, MD, assoc.prof., Head of Chair		
Year III		Semester/Semesters VI		
Total number of hours:			90	
Course	34	Practical papers/lab work	34	
Seminars	17	Individual work	5	
Evaluation	Exam	Credit number	3	

II. SUBJECT MANAGEMENT

III. LEARNING OBJECTIVES

At comprehension level, the student will be able to:

- ✓ Knowledge of the topographic anatomy of the oro-maxilo-facial region;
- ✓ Acquiring the characteristics of the etiology and pathogenesis of the inflammatory processes in the oro-maxilo-facial region;
- ✓ Acquiring the clinical evolution and differential diagnosis of infections in the OMF region according to the topographic anatomy and the severity of the general condition;
- \checkmark Acquiring various diagnostic and treatment methods for infection in OMF region



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At an implementing level, students will be able to:

- ✓ collect patient data and anamnesis (subjective exam);
- \checkmark complete the patient's medical record and informed consent;
- \checkmark interpret the results of the patient's clinical examination;

✓ interpret the radiological examination;

- \checkmark establish the diagnosis of infection in the oro-maxilo-facial area
- \checkmark use the right equipment in treating infections in the OMF region;
- \checkmark prepare the patient, doctor and surgical theatre for surgical intervention;
- \checkmark describe the doctor's and nurse's behavior during surgery;

 \checkmark perform wound dressings and care for postoperative wounds.

At the integration level:

- ✓ to know the topographic distribution of the vascular-nerve elements in the oro-maxilofacial area;
- ✓ to know the investigation methods and treatment planning at different stages of the infection evolution.

✓ to understand the relationships between the inflammatory affections of the oro-maxillofacial region with other medical specialties.

- \checkmark to implement the gained knowledge in further reasearches;
- ✓ to use the scientific information obtained through the new information and communication technologies;
- ✓ to use multimedia technology to receive, evaluate, store, produce, present and exchange information, and communicate and participate in networks via the Internet;
- \checkmark to learn how to learn, which will contribute to the management of the professional route.

IV. PRELIMINARY REQUIREMENTS

Having knowledge and respecting the ethical and professional standards regarding patients.

Having knowledge of the anatomo-topographic features of the oro-max-facial territory. Having knowledge of surgery assistance organization in the oro-maxilo-facial surgery department. Knowledge of the legal framework and required documentation within the oro-maxilo-facial surgery / surgery section (medical record, registry and patient records with inflammation in the OMF territory).

Knowledge of the methods and stages of clinical and paraclinical examinations used in cases of patients with oro maxillo-facial infections.

The student of the third year must have the following skills: knowledge of the teaching language; digital skills (use of the Internet, document processing, electronic tables and presentations, use of graphics software); ability to communicate and teamwork; qualities - tolerance, compassion, autonomy.



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V. TOPICS AND APPROXIMATE HOUR DISTRIBUTION

	Subject-Matter		Total hours		
Nr.			Semi nars	Pract ice	Indiv idual
	Etiology and Pathogenesis of Inflammatory Disorders of the			1	
1.	OMF. The role of interfacial and intermuscular spaces in the facial	1	1		
	and cervical region. Infection spreading ways and modes.	1			
_	Acute and chronic paradontitis. Etiopathogenesis, classification,		1	1	
2.	clinical development, differential diagnosis and treatment.	1			
	Periosteum suppositions (periosteal jaws). Inflammatory		1	1	
3	complications of dental eruption. Etiopathogenesis, clinical picture,	1			
5	diagnosis, treatment.	1			
	Odontogenic osteomyelitis. The definition and classification of		1	1	
	odontogenic osteomyelitis, the role of microflora in the anatomical				
	particularities of the jaws in the development of osteomyelitis.				
4	Phase evolution of odontogenic osteomyelitis. The clinical picture	1			
	of acute, subacute and chronic odontogenic osteomyelitis. Methods	-			
	of investigation of patients with osteomyelitis and differential				
	diagnosis. Local and general treatment.				
	The characteristic state of the OME and constant territory		1	1	1
	The abscesses and phiegmons of the OMF and cervical territory.		1	1	1
_	Etiology, pathogenesis, classification. The notion of abscess and				
5.	phlegmon. General and local clinical features, topographic anatomy of	1			
	inflammatory processes of perimaxial, perimandibular, primary and				
	secondary spaces. Diagnosis and treatment.		1	1	
	The abscesses of perimaxial spaces. Etiopathogenesis, classification,		1	1	1
6	topographic anatomy, clinical evolution and treatment (<i>infraorbital</i> ,	1			
	orbital, palatinal, infratemporal, pterygopalatine).				
	The abscesses of perimandibular space. Etiopathogenesis,		1	1	1
	classification, anatomical topography, clinical evolution and treatment				
7	(submandibular, submental, sublingual, mandibular-lingual, jugal,	1			
	submasseteric, pterygomandibular).				
	Absceses of laterofaringian, parotid, retromandibular, temporal		1	1	1
8	and lingual spaces. Etiopathogenesis, topographic anatomy, clinical	1			
	development and treatment.				
	Hemifacial phlegmon. Anaerobic phlegmon. Etiopathogenesis,		1	1	1
9.	topographic anatomy, clinical evolution. Intensive therapy of patients	1			
	with inflammatory diseases.				
10	Phlegmon of the maxillo-facial region and cervix.	1	1	1	
	-	ı	1	1	·



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	Etionathogenesis tonographic anatomy clinical evolution Intensive				
	thereasy of potients with inflammatery diseases				
	therapy of patients with inflammatory diseases.		1	1	
11.	Facial furuncle and carbuncle. Etiology, pathogenesis, clinical	1	1	1	
	picture, treatment. Possible complications in inflammatory diseases.	-			
10	Possible complications in inflammatory disorders: phlebitis, septic			1	
12.	thrombophlebitis, cavernous sinus thrombosis, sepsis, mediastinitis.	1			
	Lymphadenitis in the OMF. Etiopathogenesis, topographic		1	1	
13.	anatomy, clinical evolution and treatment.	1			
	Actinomycosis, syphilis and tuberculosis in OMF. Etiology,		1	1	
14.	pathogenesis, clinical evolution, differential diagnosis, treatment.	1			
	Odontogenic maxillary sinusitis. Etiopathogenesis, clinical		1	1	
	evolution, differential diagnosis, treatment, Oroantral communication:				
15.	mechanism of appearance, symptomatology, treatment	1			
	Diseases of salivary glands. Acute sialadenitis: evolution,		1	1	
	pathogenesis, clinical evolution, treatment, possible complications.				
16.	Chronic Sialadenitis: parenchymal, interstitial, Salivary fistulas.	1			
	Sialocele.				
	Sialolithiasis Definition classification pathogenesis clinical picture		1	1	
17	differential diagnosis treatment Salivary Fistulas Sialocale	1	-	-	
1/	Dethe emeric aligical exclusion differential discussion for structure	1			
	Pathogenesis, clinical evolution, differential diagnosis, treatment.				
	Total	34	17	34	5

VI. INSTRUCTIONAL OBJECTIVES AND CONTENT UNITS

(Dbjectives	Content units		
	Infections in oro-max	ilo-facial region		
\checkmark to define the no	otions of "infection", "abscess",			
"phlegmon" an	d "specific infection";			
\checkmark to know the str	ucture, properties and	Indications for surgery in infections in the		
functions of the	e anatomical formations	oro-maxilo-facial area Examinarea		
located in the o	pro-maxilo-facial region;	pacienților		
\checkmark to demontrate	he conditions of infection	Eamination methods		
development a	nd progression in the soft	Planning		
tissues in the C	MF region	Instruments		
\checkmark to comment the medical significance of the		Treatment methods in infections		
diagnostic methods in infections;		Postoperative caring of the patient		
\checkmark to rationally ap	ply the accumulated			
knowledge in t	he formulation of the			
presumptive ar	d final diagnosis;			
\checkmark to develop opin	nions on the prognosis of			



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Objectives	Content units
infections according to their anatomical-	
topographic location;	
\checkmark to apply the knowledge in formulating the	
treatment plan;	
\checkmark to draw conclusions.	



VII. PROFESSIONAL (SPECIFIC (SS) AND TRANSVERSAL (TS) SKILLS AND LEARNING OUTCOMES

Profesional competency(specific) (CS):

CP1: Knowing, understanding and using the specific terminology in infections in the OMF region;

CP2: Knowing and understanding of pathologies with indications to surgical treatment methods;

CP3: Knowing the principles of surgical techniques in infections in the OMF region ;

CP4:Solving case studies and drawing conclusion;

CP5: Planning and choosing the best surgical methods for treatment in infections in the OMF region;

CP6: Knowing how to care for the patient during the postoperative period.

✓ TRANSVERSAL COMPETENCIES (TC):

TC1: Applying professional standards of assessment, acting according to professional ethics and to the legislation in force. Promoting logical reasoning, practical implementing, assessment and self-assessment in decision-making.

TC2: Performing activities and exercising the roles specific to teamwork within the OMF cabinet / section. Promoting the spirit of initiative, dialogue, cooperation, positive attitude and respect for others, empathy, altruism and continuous improvement of their own activity.

TC3: Systematically assessing personal skills and expectations, applying self-assessments to the learned processes, acquired skills, effective use of language skills, knowledge in information technologies, research and communication skills, to deliver quality services and adapting to the dynamics of policy requirements in health and for personal and professional development.

STUDY OBJECTIVES

At the end of the course, the student will be able to

- \checkmark understand the particularities of the infection in the oro-maxilo-facial area;
- ✓ know the clinical and paraclinical methods of investigation used in the diagnosis of infection in the oro-maxilo-facial area;
- \checkmark know the technique of surgical interventions in infections in the oro-maxilo-facial region;
- \checkmark assess the severity of the infection;
- \checkmark know and be aware of medical assistance in case of emergency;
- \checkmark understand the ways of spreading the infection;
- ✓ know the basics and the practical role of the treatment indicated in time to prevent possible complications;
- \checkmark respect and follow the clinical medical deontology of the medical student;
- ✓ use the knowledge gained in medical practice;
- ✓ deduce the possible causes of the infection and their consequences, as well as the indicated medical treatment for the organism;
- ✓ use the scientific information obtained using the new information and communication technologies critically and with confidence.



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VIII. THE STUDENT'S INDIVIDUAL WORK

Nr.	The expected product	Implementing Strategies	Evaluation criteria	Deadline	
1.	Working with information	Read the lecture or the material on a certain subject in the book.	The abbility to select the most important material.	During the semester	
	sources	Reflecting on the topic of the question.	The ability to interpret the material.		
		Knowing and selecting additional information sources on the topic.	The ability to analyze the material and relate the		
		Reading the text carefully and	accumulated material on their		
		Wording the conclusions regarding the importance of the theme / subject.	own.		
2.	Solving case studies	Solving case studies, arguing the conclusions at the end of each practical work. Checking the stages of their work and grading it . Selection of the additional information, using electronic addresses and additional bibliography.	The quality of problem solving in clinical case, the ability to formulate and interpret clinical and paraclinical data. The ability to analyze the selected information from national and international professional websites.	During the semester	
3.	Evaluation of perception (basic knowledge) in clinical and paraclinical examination of patients. Assessment of surgical treatment methods for infections (odontogenic and nonodontogenic) in the OMF region.				
	Each student will complete the patient's medical record, systematize the stages of the clinical examination and collect the anamnesis. Establish the signs for paraclinical investigations, arguing their need.				
3.1.	Data recording and patient history	Lucrul cu fișa medicală și sistematizarea etapelor de colectare a anamnezei și examenului clinic.	Assessment of the accuracy and succession of the analysis.	During the semester.	
3.2.	Assessment of the indications for surgery	The student should study the particularities of the infection treatment in the OMF region at various clinical stages of inflammation.	Assessment of the accuracy and succession of the analysis.	During the semester.	
3.3.	Preparig the project	Students will prepare information on the selected topic through Power Point Graphics.	Evaluating the quality of the selected material, the design of the project and the ability to reproduce the information.	During the semester	



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IX. TEACHING- LEARNING-ASSESSMENT METHODOLOGY

Metode de predare utilizate

The teaching of Oral Maxillofacial Surgery and Oral Implantology uses different didactic methods which are oriented towards the efficient assimilation of the material and achievement of the objectives of the didactic process.

In the theoretical lessons, along with traditional methods (lesson-conversation, synthesis lesson), modern methods (lesson-debate, lesson-conference) are also used. În cadrul lucrărilor practice sunt utilizate forme de activitate individuală, frontală, în grup, lucrări de laborator virtuale. For a deeper understanding of the materialPentru însușirea mai profundă a materialului, se folosesc diferite sisteme semiotice (limbaj științific, limbaj grafic și computerizat) și materiale didactice (tabele, scheme, microfotografii, folii transparente). În cadrul lecțiilor și activităților extracuriculare sunt folosite – prezentări PowerPoint, lecții on-line.

Recommended learning methods

- **Observation** Identification of the elements characteristic to some structures or biological phenomena, description of these elements or phenomena
- Analysis Separating imaginary of the whole into component parts. Highlighting the essential elements. Studying each element as a part of the whole.
- Analysis of the scheme/drawing Selection of the necessary information. Recognition of the structures indicated in the scheme based on the knowledge and the information selected previously. Analysis of the functions / role of recognized structures.
- Comparison Analysis of the first object / process from a group and determining its essential traits. Analysis of the second object / process and the determination of its essential features. Comparing objects / processes and highlighting common features. Comparing objects / processes and determining differences. Establishing the criteria for differences. Formulating conclusion.
- **Classification** Identification of the structures / processes to be classified. Determining the criteria on which classification is to be made. Distribution of structures / processes by groups according to established criteria.
- **Drafting the scheme** Selecting the elements which must appear in the scheme. The Selectarea elementelor, care trebuie să figureze în schemă. Representing the chosen elements through different symbols/colours and indicating their interrelation. Wording of an apropriate title and the legend of the symbols used.
- Modelling –identification and selection of the necessary elements for phenomenon modelling. Imaging (graphically, schematically) the phenomenon studied. Realizing the phenomenon using the created model. Formulation of conclusions, deduced from arguments or findings.
- Experiment Formulating a hypothesis, starting from known facts, about the process / phenomenon studied. Verifying the hypothesis by performing the processes / phenomena studied under laboratory conditions. Formulation of conclusions, presumed from arguments or ascertainments.



• Strategies/applied teaching technologies (specific to the dicipline study);

"Brainstorming", "Multi-voting"; "Round table"; "Group-interview"; "Case study"; "Creative controversy"; "Focus-grup technique", "Portfolio".

Virtual practical papers

• Strategies/applied teaching technologies (specific to the dicipline study);

Frontal instruction, individual, brainstorming, group discussions, clinical case study and analysis, group work (teambuilding), mock-exam, mini-research, comparative analysis.

✓ **Evaluation Methods** (including the ways of claculating the final grade)

Actual: Current checks during seminars and practical papers, 3 totals in writing and / or testcontrol. For individual work done during the semester, the student is evaluated, the grade being included in the totals. At the end of the semester, based on the mark from the totals, the average annual grade is calculated.

Final: The course ends in an exam. The exam has two stages: test-control and interview according to the topics of the exam. The final grade is calculated on the basis of positive grades (\geq 5) of the annual average, calculated at the end of the discipline study - 50%; from test-control - 20% and oral interview - 30%. The average annual mark and the marks of all final stages of testing (test and oral answer) - are expressed in numbers according to the scoring scale (according to the table) and the final mark obtained is expressed in two decimal digits, which will be written in the report card.

THE INTERMEDIATE MARKS GRILL (Annual grade, exam grade)	National Grading System	Equivalent ECTS
1,00-3,00	2	F
3,01-4,99	4	FX
5,00	5	
5,01-5,50	5,5	E
5,51-6,0	6	
6,01-6,50	6,5	D
6,51-7,00	7	D
7,01-7,50	7,5	C
7,51-8,00	8	C
8,01-8,50	8,5	n
8,51-8,00	9	В
9,01-9,50	9,5	А

The modality to round marks at the evaluation stages



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Failure to attend the examination without a good reason is recorded as "absent" and is equivalent to 0 (zero). The student is entitled to repeat the exam 2 times.

X. RECOMMENDED BIBLIOGRAPHY

- A. Compulsory:
- 1. Materialele cursurilor.
- 2. Bucur A. Compendiu de chirurgie oro-maxilo-facială. București, 2009.
- 3. Miloro M., Ghali G.E., Larsen P.E., Waite P.D. Peterson's principles of oral and maxillofacial surgery, BC Decker, 2004.
- 4. Hupp James R., Ellis III Edward, Tucker Myron R. Contemporary Oral and Maxillofacial Surgery. Fifth Edition. Mosby Elsevier, 2008.
- 5. Робустова Т. Г. Хирургическая стоматология и челюстно-лицевой 6. хирургия.Москва: ГэотарМедия, 2010.

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B. Suplimentară:

- **1.** Щербатюк Д.И. Профилактика и лечение воспалительных заболеваний челюстно-лицевой области. Кишинев, 1987.
- 2. Burlibașa C. Chirurgie orală și maxilofacială. București: Editura medicală, 2003.
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- **4.** Popescu V., Rădulescu M. Radiodiagnosticul în stomatologie. București: Editura medicală, 1993.
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- **8.** Барера Г.М., Зорян Е.В. Рациональная фармакотерация в стоматологии. Руководство для практикующих врачей. Москва, 2006.
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- **10.** Рабухина Н. А., Аржанцев А. П. Рентгенодиагностика в стоматологии. Москва: Медицинское информационное агентство, 1999.



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