Study program: Integrated academic studies in dentistry

Type and level of the study program: integrated academic studies

Course title: Oral surgery (DIV-OSUR)

Teacher: Siniša M. Mirkovic, Branislav V. Bajkin, Ivan N Šarčev

Course status: compulsory

ECTS Credits: 10

Condition: Special Pharmacology (exam), Radiology (for exams), Dental anesthesiology (exam), Surgery (exam)

## Course aim

Mastering the knowledge in the field dentogenic infections, dental traumatology and alveolar extensions, pre-prosthetic surgery, surgical orthodontic cooperation, painful conditions of n. trigeminal and the basic skills for administering local anesthesia and tooth extraction. Identification of the risk patients in dental office and adequate preparation of these patients for interventions in oral surgery.

## **Expected outcome of the course:**

Diagnosis of pathological conditions and determining the surgical indications for oral procedures. Prevention of complications associated with tooth extraction and administration of local anesthesia; treatment modalities. Training for independent administration of local anesthesia and common tooth extraction. Performing intraoral vestibular incisions

## Course description

Theoretical education

- 1. Introduction. The concept and objectives of oral surgery. Role of oral surgery in dental care system and education of students.
- 2. Applied surgical anatomy. Osteology of the upper and lower jaw. Morphology of tooth root. Chewing and mimical musculature. Innervation zones and vascularization of the upper and lower jaws.
- 3. Tooth extraction. Indications and contraindications for tooth extraction. Principles of tooth extraction. The stages of uncomplicated tooth extraction.
- 4. Tooth extraction. Instruments for tooth extraction (pliers, levers). Extraction of individual teeth.
- 5. Complications of tooth extraction. Fractures of teeth roots. Separation of the roots. Root extraction levers. Soft tissue injuries. Foreign bodies.
- 6. Wound healing after tooth extraction. Stages of normal wound healing. Delayed healing of wounds. Post-extraction pain, swelling. Alveolitis.
- 7. Injuries of teeth, alveolar ridge and jaws during tooth extraction. Tooth injuries. Alveolar ridge and tuberosity fractures. Jaw fractures. Luxation of the mandible.
- 8. Bleeding after tooth extraction. Working protocol, procedures and methods for stopping bleeding.
- 9. Hemostasis and haemostatic disorders. Patients on anticoagulation therapy. Hemophilia. Thrombocytopenia. Liver diseases.
- 10. Oroantral communication. Procedures and measures for the diagnosis and management of oroantral communications.
- 11. Dentogenic infections. Concept and types of dentogenic infections. Microflora. Asepsis and antisepsis.
- 12. Dentogenic infection. Clinical features and diagnosis. Spreading pathways and anatomical spaces.
- 13. Dentogenic infection. Basic therapeutic principles (drugs and surgical treatment).
- 14. X-ray diagnosis. X-ray techniques in dentistry. Indications for X-ray. X-ray anatomy and pathology. Potential errors.
- 15. Emergency conditions in oral surgery. Loss of consciousness. Allergy. Emergency cardiovascular conditions. Hypovolemic shock. Resuscitation procedures.
- 16. Basic principles of oral surgery. Specificities of surgical procedure in the oral cavity. Forensic aspects of oral surgery.
- 17. Designing of incisions in dentoalveolar surgery. Indications and contraindications for the selection of the incision.
- 18. Impacted supernumerary teeth. The concept and definition. Etiological factors. Incidence. Clinical features and diagnosis
- 19. Impacted supernumerary teeth. Classification. Indications and contraindications for extraction.
- 20. Impacted supernumerary teeth, Residual roots and foreign bodies. The course of surgical removal. Wound management and early postoperative course.
- 21. Surgical orthodontic cooperation. The scope of cooperation in oral surgery. Chronological order and types of interventions. Orthodontic preparation and indication for operation. Failures of cooperation.
- 22. Chronic periapical lesions. The concept and definition. Microflora. Clinical features and diagnosis. Differential diagnosis.
- 23. Tooth root resection. Indications for operation. Preoperative preparation of the tooth. Techniques. Types of channel closure teeth.
- 24. Jaw cysts. The concept and definition. Classification. Clinical picture, diagnosis and surgical treatment. Postoperative monitoring.
- 25. Prosthetic-surgical cooperation. The scope of cooperation in oral surgery. Classification of deformities. Bone structure disorders. Combined disorders
- 26. Prosthetic surgical cooperation. Types of oral surgical procedures. Specificities of operative procedures and postoperative treatment.
- 27. Fundamentals of oral implantology. Indications for surgery. Types of implants. Complications and definition of periimplantitis.
- 28. Benign tumors of bone and soft tissue. Definition. Classification. Incidence. Clinical picture. Specific surgical treatment.
- 29. Oral-surgical aspects of facial pain. Acute and chronic pain. Painful syndromes. Idiopathic trigeminal neuralgia. Temporomandibular joint and the importance of supporting zones loss.
- 30. Oral surgical aspects of patient risk. Specificities of individual diseases indicated for oral surgery. Patients with bacterial endocarditis, cardiac rhythm disorders, endocrine disorders and liver diseases.

Practical education: exercises, other forms of education, research related activities

- 1. Introductory Pract. The demonstration. Working place. Admission and triage of patients. Medical History. Clinical examination. Sterilization and sterility protection. Protective equipment. Instruments for tooth extraction. Tooth extraction techniques and anesthesia.
- 2. Test Innervation zone. Techniques giving plexus anesthesia and mandibular anesthesia indirect method.
- 3. Test history, examination instruments, dental extraction, tooth extraction.
- 4. Practical work with patients An overview. Diagnostics. X-ray analysis. Anesthesia. Tooth extraction. Complications management. Treatment of acute dentogenic infections.
- 5. Demonstration Pract. Demonstration and assisting when performing oral surgical procedures in the operating room

## Literature

Compulsory

- 1. Miloro M, Ghali GE, Larsen PE, Waite PD. Peterson's Principles of Oral and Maxillofacial Surgery. Third ed. USA, People s Medical Publishing House 2012.
- 2. Fragikos D. Oral Surgery. Springer 2007.

Additional

1. Hupp JR, Ellis E III, Tucker MR. Contemporary Oral and Maxillofacial Surgery, Sixth ed. Mosby, St Louis 2013.

Number of active classes				Other:
Lectures:	Practice:	Other types of teaching:	Research related activities:	
60	90			
	_			

Teaching methods: Lectures, Pract. opening, working pract., demonstration pract.

Student activity assessment (maximally 100 points)					
Pre-exam activities	40 points	Final exam	60 points		
Lectures	10	Written	60		
Practices	10	Oral	/		
Colloquium	20				
Essay	/				