



Syllabus for State Examination
„Oral and Maxillofacial surgery“
students of Dental medicine

1. Historical development of the oral and maxillofacial surgery. Scope and aims. Oral surgery in Bulgaria.
2. Asepsis and antisepsis in oral surgery. Preparation of the patient and surgical team.
3. Patient evaluation in oral surgery. Patient’s history and physical examination.
4. Paraclinical tests in oral surgery. Laboratory, microbiology, histology, cytology, and imaging studies in oral surgery.
5. Pain – definition, etiology, classification. Pathways for superficial and deep somatic pain.
6. Basic surgical principles: wounds, hemostasis, wounds healing, impairment of the healing process, tissues, and teeth replacement.
7. Anesthesia in oral surgery. General information. Types of anesthesia. Preparation of the patient for anesthesia (premedication).
8. Local anesthetics. Pharmacology.
9. Vasoconstrictors. Pharmacology, indications, and contraindications for their use in oral surgery.
10. Anatomical and physiological characteristics of the maxillofacial area. Terminal local anesthesia - topical anesthesia, infiltrative anesthesia, intrafilamentary anesthesia. Techniques.
11. Regional block anesthesia of the maxilla (intra- and extraoral). Anatomic and topographic features. Techniques.
12. Regional block anesthesia of the mandible (intra- and extraoral). Anatomic and topographic features. Techniques.
13. Anesthesia in children - characteristics. Features of regional anesthesia in oral and maxillofacial areas in inflammatory processes.
14. Local complications of local anesthesia. Clinical signs, diagnosis, management.
15. General complications of local anesthesia. Clinical signs, diagnosis, management.

16. General anesthesia in oral surgery. Types of anesthetic agents. Management and guidance of anesthesia. Complications, prevention.
17. Pharmacological management of pain – non-opioid, opioid and adjuvant analgesics. Types, mechanism of action.
18. Common surgical instruments – types, design, and principles of use.
19. High-frequency electrosurgery, piezo surgery and lasers in oral surgery.
20. Surgical sutures and suturing – instruments and materials. Types of sutures and knots. Techniques.
21. Tooth extraction (exodontia). Indications and contraindications. Preparation of the patient.
22. Instruments for tooth extraction – types, design, and principles of use.
23. Anatomical and mechanical considerations for tooth extraction - steps and methods. Dentist's and patient's care for the extraction wound. Extraction wound healing – characteristics of the process.
24. Surgical (open, atypical) extraction. Indications, techniques.
25. Removal of partially erupted and impacted teeth. Indications, contraindications, techniques, complications. Gernectomy.
26. Tooth extractions in medically compromised patients (disorders of cardiovascular and respiratory systems). Management.
27. Tooth extractions in medically compromised patients (disorders of blood and hematopoietic system). Management.
28. Tooth extractions in medically compromised patients (endocrine and renal disorders). Management.
29. Tooth extractions in medically compromised patients (hepatic disorders, patients on corticosteroid therapy, received radiotherapy; pregnant woman). Management.
30. Complications during tooth extraction. Local complications. Clinical signs, diagnosis, management.
31. Complications during tooth extraction. General complications. Clinical signs, diagnosis, management.
32. Complications after tooth extraction. Clinical signs, diagnosis, management.
33. Inflammatory processes in the oral cavity and maxillofacial area. Incidence, etiology and pathogenesis. Pathways of infection dissemination. General characteristics of the inflammation in the oral cavity and maxillofacial area. Patient assessment.
34. Tooth eruption disorders. Classification. Retained tooth eruption. Etiology and pathogenesis. Clinical signs. Methods of diagnosis and treatment.

35. Tooth eruption disorders. Classification. Complicated tooth eruption. Etiology and pathogenesis. Clinical signs. Methods of diagnosis and treatment.
36. Periodontitis. Etiology and pathogenesis. Classification. Acute apical periodontitis. Clinical signs. Methods of diagnosis and treatment.
37. Chronic apical periodontitis. Clinical signs. Methods of diagnosis and treatment. (hemisection, replantation, root amputation).
38. Apical osteotomy. Indications, contraindications. Preoperative preparation of the tooth. Techniques, complications, prevention.
39. Inflammatory processes (abscesses and phlegmons) of the face – anatomy, clinical signs, differential diagnosis. Treatment.
40. Maxillary abscesses and phlegmons - anatomy, clinical signs, differential diagnosis. Treatment.
41. Abscesses and phlegmons around the mandible - anatomy, clinical signs, differential diagnosis. Treatment.
42. Abscesses and phlegmons of the tongue, floor of the mouth, parapharyngeal space - anatomy, clinical signs, differential diagnosis. Treatment.
43. Acute osteomyelitis of the jaws - clinical signs, differential diagnosis. Treatment.
44. Chronic osteomyelitis of the jaws - clinical signs, differential diagnosis. Treatment.
45. Acute nonspecific lymphadenitis in the maxillofacial area. Clinical signs, differential diagnosis. Treatment.
46. Chronic nonspecific lymphadenitis in the maxillofacial area. Clinical signs, differential diagnosis. Treatment.
47. Acute odontogenic sinusitis. Clinical signs, differential diagnosis. Treatment.
48. Chronic odontogenic sinusitis. Clinical signs, differential diagnosis. Treatment.
49. Syphilis. Classification. Clinical signs, methods of diagnosis, differential diagnosis. Treatment. Prophylaxis.
50. Tuberculosis. Classification. Clinical signs, methods of diagnosis, differential diagnosis. Treatment. Prophylaxis
51. Actinomycosis. Classification. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
52. HIV/AIDS. Presentation in oral cavity and maxillofacial area. Clinical signs, methods of diagnosis, treatment, prophylaxis.
53. Life threatening complications associated with abscesses and phlegmons (thrombosis of the cavernous sinus, mediastinitis, brain abscess, etc.). Clinical signs, methods of diagnosis, differential diagnosis. Treatment.

54. Sepsis from odontogenic origin. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
55. Treatment of acute inflammation from dental origin - basic surgical principles. Types of incisions and drainage systems.
56. Treatment of acute inflammation from dental origin – basic principles of medication. Antibacterial drugs. Prescription.
57. Treatment of acute inflammation from dental origin – basic principles of medication. Nonsteroidal anti-inflammatory drugs (NSAIDs), antihistamines, immunotherapy. Prescription.
58. Soft tissue cysts in oral cavity and maxillofacial area. Classification. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
59. Cysts of the jaws. Classification. Etiology and pathogenesis. Clinical signs, methods of diagnosis.
60. Cysts of the jaws. Differential diagnosis. Treatment.
61. Salivary gland diseases. Main methods of diagnosis.
62. Acute sialadenitis. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
63. Chronic sialadenitis. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
64. Reactive-dystrophic processes in salivary glands (sialoadenoses). Clinical signs. Methods of diagnosis. Differential diagnosis. Treatment.
65. Sialolithiasis. Classification. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
66. Temporomandibular joint disorders: inflammatory and reactive-dystrophic (arthritis and arthrosis). Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
67. Temporomandibular joint disorders: subluxation, luxation, contracture, ankylosis. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
68. Trigeminal neuralgia. Clinical signs. Methods of diagnosis. Differential diagnosis. Treatment.
69. Facial paresis and paralysis. Paralysis of the hypoglossal nerve. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
70. Soft tissue trauma in oral cavity and maxillofacial area. Classification. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
71. Teeth trauma. Classification. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
72. Maxillary fractures. Classification. Clinical signs, methods of diagnosis, differential diagnosis.
73. Maxillary fractures. Methods of treatment.
74. Mandible fractures. Classification. Clinical signs, methods of diagnosis, differential diagnosis.

75. Mandible fractures. Orthopedic principles and methods of management. Indication and contraindications.
76. Mandible fractures. Surgical and orthopedic-surgical methods of management. Indications and techniques.
77. Zygomatic complex fractures. Classification. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
78. Life threatening complications associated with maxillofacial trauma (asphyxiation, hemorrhage, shock). Clinical signs, methods of diagnosis. Treatment.
79. Life threatening complications associated with maxillofacial trauma (commotio cerebri, cerebral compression, cerebral contusion). Clinical signs, differential diagnosis, methods of diagnosis. Treatment.
80. Tumors in oral cavity and maxillofacial area. Etiology and pathogenesis. Characteristics. Basic principles of diagnosis Clinical signs, methods of diagnosis. Classification based on localization. Clinical classification – TNM-system.
81. Oral and maxillofacial preneoplastic disorders. Classification. Etiology and pathogenesis. Erythroplakia and leukoplakia - clinical signs. Methods of diagnosis, differential diagnosis. Treatment.
82. Oral and maxillofacial preneoplastic disorders. Lichen ruber planus (Lichen planus), cheilitis, melanoplakia, cornu cutaneum, keratoacanthoma. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
83. Benign soft tissue tumors of the skin and oral cavity. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
84. Benign odontogenic tumors of the jaws. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
85. Benign nonodontogenic tumors of the jaws. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
86. Malignant soft tissue tumors of oral cavity (lips, cheeks, gingiva, (tongue, floor of the mouth, hard palate). Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
87. Maxillary carcinoma. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
88. Maxillary sarcoma. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
89. Mandible carcinoma. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
90. Mandible sarcoma. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
91. Benign tumors of salivary glands. Classification. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.

92. Malignant tumors of salivary glands. Classification. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
93. Lymphoreticular tumors. Classification. Non-Hodgkin's lymphomas. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
94. Lymphoreticular tumors. Classification. Hodgkin's lymphomas. Clinical signs, methods of diagnosis, differential diagnosis. Treatment.
95. Treatment of malignant oral and maxillofacial tumors – basic principles.
96. Prophylaxis and early diagnosis of the oral carcinomas.
97. Surgical approaches for the treatment of periodontal diseases – resective surgical techniques.
98. Surgical approaches for the treatment of periodontal diseases – regenerative surgical techniques.
99. Periodontal plastic surgery (mucogingival surgery). Methods of vestibuloplasty operations. Indications. Techniques.
100. Periodontal plastic surgery (mucogingival surgery). Gingival recessions. Classification, indications, techniques.
101. Pre-prosthetic preparation of the jaws. Indications and methods. Surgical techniques.
102. Plastic and reconstructive surgery – basic principles. Free skin grafts. Indications and surgical techniques.
103. Plastic and reconstructive surgery – basic principles. Flap surgery. Indications and surgical techniques.
104. Clefts in maxillofacial area. Classification. Etiology and pathogenesis. Cleft lip - clinical signs, deadlines for surgery, basic principles.
105. Clefts in maxillofacial area. Classification. Etiology and pathogenesis. Cleft palate - clinical signs, deadlines for surgery, basic principles.
106. Jaw deformities and acquired defects in maxillofacial area. Surgical management – techniques.

Sources:

- ✚ *Pechalova P. Introduction to oral surgery: a textbook for the third year students of dental medicine. Medical university, Plovdiv, Bulgaria 2016, 400pp, ISBN 978-619-7085-77-8*
- ✚ *Atanasov D., Pechalova P., Tsvetanov TS. A Textbook of Oral and Maxillofacial Surgery. Plovdiv, 2018 Publisher: Medical University – Plovdiv, Bulgaria ISBN 978-619-237-002-2.*
- ✚ *Miloro M, Ghali GE, Larsen P, Waite P. Peterson's Principles of Oral and Maxillofacial Surgery, third edition (2012) PMPH – USA, Ltd. ISBN-13: 978-1607951117*
- ✚ *Hupp JR, Ellis E III, Tucker MR. Contemporary oral and maxillofacial surgery, fifth edition (2008) Mosby, Inc affiliate of Elsevier Inc. ISBN 9780323049030*

✚ *Andersson L, Kahnberg KE, Pogrel A. Oral and Maxillofacial Surgery (2010) Blackwell Publishing Ltd. ISBN 978-1-4051-7119-9*

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