



Examination syllabus

„Special surgery, including local anesthesia and analgesics in dental medicine“

3rd year 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 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, intraligamentary 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, piezosurgery 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.

Sources:

- ✚ *Pechalova P, Introduction to oral surgery, a textbook for the third-year students of dental medicine, Plovdiv 2016*
- ✚ *Andersson L, Kahnberg KE, Pogrel A. Oral and Maxillofacial Surgery (2010) Blackwell Publishing Ltd. ISBN 978-1-4051-7119-9*
- ✚ *Hupp JR, Ellis E III, Tucker MR. Contemporary oral and maxillofacial surgery, fifth edition (2008) Mosby, Inc affiliate of Elsevier Inc. ISBN 9780323049030*
- ✚ *Malamed SF. Handbook of local anesthesia, sixth edition (2013) Mosby, Inc affiliate of Elsevier Inc. ISBN: 978-0-323-07413-1*
- ✚ *Fragiskos FD. Oral surgery (2007) Springer-Verlag Berlin Heidelberg. ISBN-13: 978-3-540-25184-2.*

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