

**MINISTRY OF SCIENCE AND HIGHER EDUCATION  
RUSSIAN FEDERATION**

**FEDERAL STATE AUTONOMOUS EDUCATIONAL INSTITUTION OF  
HIGHER EDUCATION  
NORTH-CAUCASUS FEDERAL UNIVERSITY**

Methodological Guidelines  
for Students on arranging and performing independent work  
in the Discipline of "Dental Medicine and Oral and Maxillofacial Surgery"  
for Students majoring (Specialty) in 31.05.01 General Medicine

## INTRODUCTION

The objective of studying this discipline is to acquire knowledge of the fundamental symptoms and syndromes associated with urological diseases, as well as the principles underlying the performance of professional medical tasks related to providing care for patients with dental conditions.

The objectives of this discipline are:

- to study the principles of organizing dental care in both outpatient and inpatient settings;
- to master clinical and paraclinical examination methods for patients with maxillofacial pathologies, as well as the interpretation of obtained data, thereby fostering clinical reasoning in accordance with medical ethics and professional standards.
- Study the methods of general and local anesthesia used during surgical procedures in the maxillofacial region; • Acquire theoretical and practical skills for extracting various tooth groups and performing outpatient oral surgeries;
- Understand the clinical characteristics and surgical treatment approaches for inflammatory conditions in the maxillofacial region.
- Learn to distinguish the clinical features of firearm and non-firearm facial injuries, thermal injuries to the maxillofacial region, and the stages of the wound healing process; • Master conservative and surgical treatment methods as well as rehabilitation approaches for patients with facial trauma;
- Study the fundamentals of oncological care for patients with tumor-related lesions in the maxillofacial region, taking into account the concept of oncological vigilance.
- Familiarize oneself with the fundamental techniques of plastic surgery;
- Study the methods for preventing and managing conditions in patients with diseases or injuries affecting the maxillofacial region.

### **Methodological Recommendations for Studying Theoretical Material**

When performing the independent study of theoretical material, the student must follow the rules as set below. The working curriculum of the respective academic discipline shall be recommended to be used as the basis for such activity. According to the schedule of classroom lessons and independent work, a different number of hours is to be allocated for studying individual topics. A significant portion of the student's independent work should be allocated to mastering the material on the covered topic, writing a summary (notes) on the specified theoretical blocks, and searching for additional literature based on the NCFU library and via the Internet system. The lecture material shall not cover all theoretical material; the greater part of it must be mastered through independent work. Given the above, working with the recommended literature is mandatory. Special attention must be paid to the content of the main provisions and conclusions, the explanation of phenomena and facts, and the understanding of the practical application of the theoretical issues under consideration. In the process of this work, the student should strive to understand and memorize the main provisions of the material being considered, the examples illustrating it, as well as to understand the illustrative material. Preparation should be completed by drawing up a plan (summary/notes) on the material (issue) being studied. This allows for the creation of a concentrated, concise representation of the issues being studied. First, studying the

recommended literature is to be done. Special attention must be paid to the content of the main provisions and conclusions, the explanation of phenomena and facts, and the understanding of the practical application of the theoretical issues under consideration.

During this work, the student should strive to understand and memorize the main provisions of the material being considered, the examples illustrating it, as well as to understand the illustrative material. Preparation should be completed by drawing up a plan (summary/notes) on the material (issue) being studied. This allows for the creation of a concentrated, concise representation of the issues being studied. If necessary, one should seek (advice) consultation from the instructor. When going to a consultation, it is necessary to thoroughly think through the questions that require clarification. Keeping records contributes to turning reading into an active process, mobilizing motor memory along with visual memory. The following should be born in mind: a student who systematically keeps records creates their own individual stock of auxiliary materials for a quick review of what has been read and for the mobilization of accumulated knowledge. Records are especially important and useful when they reflect the thoughts that arose during independent work.

It is important to develop the students' capacity to compare sources and to think through the material being studied.

Improving note-taking skills among students is of great importance.

The instructor may recommend the following main forms of recording to students: a plan (simple and detailed), excerpts, and theses (abstracts).

The results of note-taking can be presented in various forms.

- A plan is an outline of the read material, a brief (or detailed) list of questions reflecting the structure and sequence of the material.
- A detailed plan fully replaces a summary.
- A summary (notes) is a systematized, logical presentation of the source material. Four types of summaries are distinguished:
  - Outline-summary (Plan-notes) – this is an expanded, detailed plan in which sufficiently detailed records are provided for those points of the plan that need explanation.
  - Textual summary – this is the reproduction of the most important provisions and facts of the source.
  - Free summary – these are clearly and briefly formulated (stated) main provisions resulting from a deep understanding of the material. It may contain excerpts, quotations, and theses; part of the material may be represented by a plan.
  - Theme-based summary – this is compiled on the basis of studying a number of sources and gives a more or less exhaustive answer according to a certain scheme (issue).

### **Methodological Guidelines for the Preparation for Practical Activities**

When preparing for practical activities, the recommendation implies studying the control questions for the given lesson and the theoretical material from one's own notes.

The main form of work during the lessons is an interview (discussion). Each student must be ready to speak on all issues raised in the plan and demonstrate maximum activity during their consideration.

The speech must be constructed freely, convincingly, and with arguments. The instructor ensures that the speech is not reduced to a reproductive level (simple reproduction of the text); simple reading of the summary is also not allowed.

It is necessary for the speaker to show their own attitude towards what they are talking about, express their personal opinion and understanding, substantiate it, and be able to draw the correct conclusions from what has been said. In doing so, the student may refer to the entries in the summary, directly to the primary sources, use knowledge of previously studied disciplines, etc. In addition, to obtain a grade at an advanced level, students solve situational tasks based on the results of the mastered topics.

During the execution of practical works, a defense of practical skills is provided, the full list of which is specified in the fund of assessment tools.

### **Methodological Recommendations for the Preparation of Presentations and Reports**

The report must contain elements of novelty; along with the fundamental aspect, an analysis of the current state of the problem under study must be carried out, as well as inclusion in regional issues. The report must include an introduction, a theoretical part, a conclusion, a list of literature, and a presentation that reveals the essence of the topic in graphs, pictures, diagrams, and formulas.

The report is recommended to be submitted on 1 printed sheet. The text of the work must be printed with 1.5 line spacing on one side of a standard sheet (A4) of white paper.

The text and other printed elements of the work must be black, and the contours of letters and signs must be clear, without halos and shading. The font must be Times New Roman, size 14. The titles of chapters and paragraphs are highlighted in bold. The sheet with text must have margins: left – 30 mm, right – 10 mm, top – 20 mm, bottom – 20 mm.

Page numbering of the text is done in the lower right corner of the sheet. It is necessary to number pages starting from the page where the Introduction is printed, on which the number 3 is placed. After that, all pages, including appendices, are numbered.

A space equal to two intervals is placed between the title of the chapter and the title of the paragraph of this chapter, and the title of the paragraph must not be separated from the text of this paragraph by a space. The titles of paragraphs shall be separated from the text of the previous paragraph by a space equal to two intervals. Each chapter, as well as the introduction, conclusions, appendices, and the list of used literature, begin on a new page. The word Chapter is not to be written. Chapters have ordinal numbers within the entire work, designated by Arabic numerals (for example: 1, 2, 3), followed by a period.

The word **PARAGRAPH** or the paragraph symbol (§) is not placed in the title. Paragraphs have ordinal numbers within the chapters, designated by Arabic numerals (for example: 1.1. and 1.2.).

Headings of chapters and paragraphs in the text must be centered; a period shall not be placed at the end of the title of the chapter and paragraph. It is not allowed to hyphenate (transfer) a part of a word in a heading. 4.5. The numbering of tables and figures can be running (continuous) or relate to the number of the chapter and paragraph. For example, if a table or a figure is included in the text of the first paragraph of the second chapter, the numbering is as follows: Table 2.1.1., Fig. 2.1.1.

The last digit means the ordinal number of the table (or figure) in this paragraph.

The table is to be placed as the next page after the first mention of it in the text.

### **Recommended Literature and Online Resources**

#### **Main References:**

1. Kapustin, K. M. Dentistry: A Textbook / K. M. Kapustin, D. N. Orlov. – 2nd ed. – Saratov: Nauchnaya kniga, 2019. – 159 pp. – ISBN 978-5-9758-1782-2. – Text: electronic version // Digital Educational Resource IPR SMART: [website]. URL: <https://www.iprbookshop.ru/81053.html>
2. Felays, D. Emergency Care in Dentistry / D. Felays; edited by A. D. Felays, A. S. Artushkevich, E. K. Trofimova. – Moscow: Medical Literature, 2021. – 447 pp. – ISBN 975-5-89677-008-4. – Text: electronic format // Digital educational resource IPR SMART: [website]. URL: <https://www.iprbookshop.ru/108391.html>.

3. Maxillofacial surgeries: a reference manual / A. E. Gutsan, Yu. I. Bernadsky, P. D. Godorozha [et al.]; edited by A. E. Gutsana. – 2nd ed. – Moscow: Medical Literature, 2021. – 397 pp. – ISBN 978-985-6333-03-6. – Text: electronic format // Digital educational resource IPR SMART: [website]. – URL: <https://www.iprbookshop.ru/108390.html>

### **Additional Literature**

1. Artiushkevich, A. S. Traumas and Reconstructive Surgery of the Maxillofacial Region: Textbook / A. S. Artiushkevich. Minsk: Higher School Press, 2016. 256 pp. ISBN 978-985-06-2646-2. Text: electronic format // Digital Educational Resource IPR SMART: [website]. URL: <https://www.iprbookshop.ru/90845.html>
2. Babkin, S. M. Physiology of the Maxillofacial Region: Textbook / S. M. Babkin, V. I. Belyakov. – Samara: REAVIZ, 2009. – 76 pp. – Text: electronic format // Digital Educational Resource IPR SMART: [website]. URL: <https://www.iprbookshop.ru/10131.html>
3. Clinical Pathophysiology of the Maxillofacial Region: A Textbook / E. V. Prutkina, E. Yu. Maslo, N. V. Isakova, E. V. Feefelova; edited by N. N. Cibikov. – Published by Chita: Chitinsk State Medical Academy, 2012. – 103 pp. – Text: electronic format // Digital educational resource IPR SMART: [website]. – URL: <https://www.iprbookshop.ru/55315.html>
4. Luts kaya, I. K. Diagnostic Handbook for Dentists. Moscow: Medical Literature Press, 2010. – 399 pp. – ISBN 978-5-89677-112-8. – Text: electronic format // Digital educational resource IPR SMART: [website]. – URL: <https://www.iprbookshop.ru/66745.html>
5. Luts kaya, I. K. Medical Products in Dentistry / I. K. Luts kaya, V. Yu. Martov. – Moscow: Medical Literature, 2013. – 389 pp. – ISBN 978-5-89677-088-6. – Text: electronic format // Digital Educational Resource IPR SMART: [website]. – URL: <https://www.iprbookshop.ru/66750.html>
6. Moiseeva, V. V. Therapeutic Dentistry: Textbook / V. V. Moiseeva. – 2nd ed. – Saratov: Nauchnaya kniga, 2019. – 159 pp. – ISBN 978-5-9758-1791-4. – Text: electronic format // Digital educational resource IPR SMART: [website]. – URL: <https://www.iprbookshop.ru/81062.html>

### **Internet resources:**

1. <http://ruddoctor.net> / – Medical portal
2. <http://www.e-reading.club> / – Large online library
3. <https://dic.academic.ru> / – Dictionaries and encyclopedias
4. <https://roszdravnadzor.gov.ru> / – Federal Service for Healthcare Supervision
5. <https://www.rmj.ru> / – Russian Medical Journal

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**Topic 1. Introduction to Dentistry.** Organizational structure of dental care facilities. Types of dental services and dental care. Dental screening as a method for preventing dental diseases and their complications. The systematic preventive care system. Examination methods for dental patients. Classification of diseases of the teeth, oral cavity, and jaws (ICD-10). Periodontal diseases: gingivitis, periodontitis, and periodontosis; including their etiology, pathogenesis, diagnosis, and prevention. Introduce the fundamental challenges in dentistry. Teach the techniques for examining and diagnosing dental patients, as well as those with diseases of the tooth's hard tissues or oral cavity disorders.

**Topic 2. Major non-carious dental diseases:** etiology, pathogenesis, clinical manifestations, diagnosis, treatment, and prevention. Diseases of the teeth: dental caries and pulpitis; including their etiology, clinical features, treatment approaches, and preventive measures. This section also covers diagnostic methods for dental patients and individuals with disorders of tooth hard tissues or oral cavity conditions.

**Topic 4: Pathology of the mucosal lining of the oral cavity;** its relationship to general systemic dental diseases; inflammatory disorders of the jaws, face, and neck.

**Objective:** To outline the fundamental principles of diagnosis and treatment for inflammatory diseases of the oral cavity and mucosal tissues of the oral cavity.

**Task:** To familiarize practitioners with modern therapeutic and diagnostic approaches for inflammatory disorders of the oral cavity.

1. Mucosal diseases of the oral cavity (cheilitis, glossitis, stomatitis): etiology, pathogenesis, clinical manifestations, and diagnostic methods.
2. Periodontal diseases (gingivitis, periodontitis, periodontosis).
3. Inflammatory bone diseases of the maxillofacial region (periostitis). Osteomyelitis: etiology, pathogenesis, clinical manifestations, diagnosis, and treatment.
4. Phlegmon and abscesses of the face and jaw (superficial and deep types): classification, etiology, pathogenesis, mechanisms of acute inflammatory spread throughout the parenchymal spaces of the maxilla; general clinical features, odontogenic phlegmon and its complications, modern treatment principles.
5. Lymphadenitis of the neck and face. Classification, etiology, clinical manifestations, and differential diagnosis (from hematologic disorders, specific pathological processes, infectious diseases, as well as regional and distant metastases).
6. Adenoflegmon of the periosteal tissues of the jaw, face, and neck: clinical presentation, diagnosis, and treatment.
7. Odontogenic sinusitis; sinus tracts of the maxillary sinus: etiology, pathogenesis, clinical features, diagnostic methods, and treatment approaches.
8. Furuncles and carbuncles of the face. Clinical manifestations, treatment, complications and their prevention.
9. Acute and chronic inflammatory diseases of the salivary glands: etiology, pathogenesis, classification, clinical features, diagnostic methods, and treatment.
10. Secondary destructive parotitis: clinical presentation, differential diagnosis, and treatment.
11. Salivary gland stones; Sjögren's disease and its associated syndrome: etiology, clinical manifestations, diagnosis, and management.

**Topic 8. Traumatology of the Maxillofacial Region:** Diagnosis, Clinical Presentation, and General Treatment Principles; Interdisciplinary Aspects in Combined Craniofacial Injuries.

**Objective:** To outline the fundamental principles of diagnosis and treatment for traumatic maxillofacial disorders.

**Task:** To equip practitioners with modern diagnostic methods and first aid protocols for maxillofacial injuries.

1. Disorders of the temporomandibular joint: inflammatory and dystrophic types. Pathogenesis, clinical manifestations, diagnosis, and prevention.
2. Types and characteristics of soft tissue injuries in the maxillofacial region (contusions, bruises, hematomas, lacerations, puncture wounds, incised wounds, avulsions, and bite wounds); firearm injuries – clinical presentation, stage-specific features, diagnostic approach, and characteristics of maxillofacial trauma depending on injury type.
3. Dental fractures and dislocations, including mandibular dislocation – clinical presentation, diagnosis, and treatment principles.
4. Fractures of the lower jaw. Classification, clinical manifestations, diagnosis, and treatment (first aid for patients, transport immobilization). Complications of fractures. Care and nutrition of patients.
5. Maxillary fractures: Classification, clinical manifestations, diagnosis, and treatment (first aid for patients, transport immobilization).

6. Characteristics of the clinical presentation, diagnosis, and treatment of facial bone fractures involving skull damage or injuries to other organs.
7. Temporary (transport) immobilization of jaw fractures. Nutrition and care for patients with injuries to the maxillofacial region.
8. Complications of jaw fractures. Traumatic osteomyelitis of the jaws: etiology, pathogenesis, clinical manifestations, diagnosis, and treatment.

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4. <https://roszdravnadzor.gov.ru> / – Federal Service for Healthcare Supervision
5. <https://www.rmj.ru> / – Russian Medical Journal