Federal State Autonomous Educational Institution of Higher Education
«Peoples' Friendship University of Russia»

Medical Institute

Recommended MCSD

SYLLABUS
(STUDY GUIDE)

Subject

Maxillofacial Surgery

Recommended for the direction of training (specialty)

31.05.01 General Medicine

Program (profile, specialization)

General Medicine

1. **Goals and objectives of the discipline:**

The goal is to prepare students for examination, diagnosis and treatment of patients with odontogenic inflammatory diseases, traumatic injuries, diseases of the salivary glands, surgical care for patients with defects and deformities of the maxillofacial tissues, diseases and neoplasms of the maxillofacial region.

Objectives:

- Study of the etiology and pathogenesis of odontogenic inflammatory diseases
- Study of the clinical picture and diagnosis of odontogenic specific and non-specific inflammatory diseases
- Formation of theoretical and practical skills in surgical treatment patients with various inflammatory processes in polyclinic and hospital settings
- Study of salivary gland research methods
- Study of methods of diagnosis and treatment of salivary gland diseases
- Mastering methods of diagnosis of traumatic injuries of teeth, soft tissues, facial bones
- Study of the stages of primary surgical treatment of facial wounds, methods rehabilitation of victims
- Development of treatment methods for patients with traumatic injuries
- Training in examination methods for patients with tissue defects and deformities maxillofacial region
- Assimilation of indications for dental surgical treatment of patients with deformities and defects of maxillofacial tissues
- Training in drawing up a treatment plan for patients with tissue defects and deformities maxillofacial region in outpatient settings
- Mastering plastic surgery techniques with local fabrics
- Introduction to the methods of plastic surgery with leg flaps, free tissue flaps, round stem, flap tissues, flaps on microvascular anastomoses
- Introduction to gnatic operations
- Mastering methods of providing care to patients with tissue defects and deformities of maxillofacial region in outpatient settings
- Introduction to methods of rehabilitation of patients with defects and deformities of maxillofacial tissues.

2. **The place of the discipline in the structure of the EP HE**:

The discipline ***Maxillofacial surgery*** belongs to ***the basic*** part of block 1 of the academic plan.

Table 1 shows the previous and subsequent disciplines aimed at the formation of the discipline's competencies in accordance with the matrix of competencies of the EP HE.

Table № 1

Previous and subsequent disciplines aimed at the formation of competencies

№ п/п	Code and title of competence	Previous disciplines	Following disciplines (groups of disciplines)
General Professional Competences			

	GPC-4	Radiation diagnostics; Medical rehabilitation; General surgery; Faculty Surgery	Endoscopic urology; Oncology, radiation therapy
	GPC-5	Microbiology, virology; Pathophysiology, Clinical pathophysiology; Neurology, medical genetics, Neurosurgery	Forensic medicine; Hospital therapy; Anesthesiology, Resuscitation, Intensive care
	GPC-7	General surgery; Faculty Surgery; Otorhinolaryngology; Ophthalmology	Hospital surgery, Pediatric Surgery
Professional Competences (type of professional activity)			
	PC-2, PC-3, PC-6	Physics; Pathophysiology, Clinical Pathophysiology; Pathophysiology, Clinical pathophysiology	Clinical Pharmacology; Oncology, radiation therapy; Endoscopic urology

3. Requirements for the results of mastering the discipline:

The process of studying the discipline is aimed at the formation of the following competencies:

Table 2

Emerging competences

Competences	Competence name	Indicators of achievement of competencies
GPC-4	Being able to use medical devices provided for by the procedure for medical care, and conduct patient examinations in order to determine a diagnosis	GPC-4.2. Being able to assess the effectiveness and safety of medical devices.
GPC-5	Being able to assess morpho-functional, physiological conditions and pathological processes in the human body to solve professional tasks	GPC-5.1. Mastering the algorithm of clinical, laboratory and functional diagnosis when dealing with professional tasks. GPC-5.2. Being able to evaluate the results of clinical, laboratory and functional diagnosis when dealing with professional tasks. GPC-5.3. Being able to determine morpho-functional, physiological states and pathological processes of the human body.
GPC-7	Being able to prescribe treatment and monitor its efficacy and safety	Being aware of the algorithm for making a preliminary diagnosis with the subsequent referral of the patient to the relevant medical specialist.
PC-2	Being able to examine a patient in order to determine a diagnosis	PC-2.1. Mastering the skills to collect complaints, anamnesis of the patient's life and disease, as well as conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation). PC-2.2. Being able to make a preliminary diagnosis and make up a plan of laboratory and instrumental examinations of a patient. PC-2.3. Being able to refer a patient to a laboratory examination in case there are medical indications in accordance with the current

		procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the medical care standards. PC-2.4. Being able to refer a patient to an instrumental examination in case there are medical indications in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care. PC-2.5. Being able to refer a patient to consult with a medical specialist if there is a medical indication in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care. PC-2.6. Being able to refer a patient to be provided with specialized medical care in an inpatient setting or in a day hospital in case there are medical indications in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care. PC-2.7. Being able to carry out differential diagnosis with other diseases/conditions, including the urgent ones, as well as to make a diagnosis taking into account the current international statistical classification of diseases and problems related to health (ICD).
PC-3	Being able to prescribe treatment and monitor its efficacy and safety	PC-3.1. Being able to develop a treatment plan for a disease or condition taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care.
PC-6	Being able to keep medical records and organize the activities of the nursing staff	PC-6.1. Being able to draw up a work plan and report on their work, issue a passport for a healthcare (therapeutic) area.

As a result of study of discipline a student must:

Know:

- Etiology, pathogenesis, and clinical presentation of odontogenic and specific inflammatory processes of the face and neck
- Etiology, pathogenesis, clinical picture and treatment of patients with diseases of salivary glands
- Methods of instrumental diagnosis and treatment of patients with bone fractures the facial skull

- Methods of diagnosis and treatment of maxillofacial neoplasms
- Classification of diseases of the nerves of the maxillofacial region
- Etiology and pathogenesis, current classification, features and possible consequences complications of maxillofacial defects and deformities
- Methods of examination of patients with maxillofacial defects and deformities regions
- Methods of diagnostics of defects and deformities of the maxillofacial region
- Clinical picture of congenital and acquired defects and deformities maxillofacial region
- Sources of tissue borrowing for maxillofacial rehabilitation of front area
- Basic methods of rehabilitation treatment of the maxillofacial region
- Basic methods for eliminating age-related skin changes
- Principles of planning reconstructive operations in the maxillofacial region
- Principles of postoperative patient management, methods of treatment and prevention of complications, determination of the disease prognosis

Be able:

- Perform topical diagnostics of acute and chronic inflammatory diseases of face and neck of various localization
- Take measures in case of shock, asphyxia or bleeding
- Perform various methods of local anesthesia and perform an incision from the skin in the treatment of abscess
- Perform autopsy and drainage of abscesses by intraoral access: subcostal and maxillofacial grooves
- Treat a purulent wound
- Treat patients with various variants of dislocation and fracture of the tooth
- Remove a tooth from the fracture line
- Conduct treatment of patients with alveolar process fracture
- Conduct treatment of patients with various variants of lower jaw dislocation
- Provide specialized care for jaw fractures without displacement of fragments by manufacturing and applying inter-maxillary ligature bonding, smooth splints-staples, splints-mouthguards made of plastic in a polyclinic
- Provide emergency care to victims with facial injuries on an outpatient basis
- Perform primary surgical treatment of facial wounds on an outpatient basis
- Determine the deadline for the end of the immobilization of fragments and carry out rehabilitation measures
- Remove previously applied wire splints after consolidating fragments of jaws
- Perform diagnostics of salivary gland diseases
- Diagnose defects and deformities of the maxillofacial region
- Make a plan for the entire cycle of rehabilitation treatment of patients with defects and deformations of maxillofacial area tissues
- Make a diagnosis for age-related changes in the skin of the face and neck
- Evaluate the results of reconstructive operations in the maxillofacial region
- Perform postoperative rehabilitation of patients with defects and deformities of maxillofacial tissues in outpatient settings
- Perform suturing of linear wounds

Own:

- All skills of providing assistance to patients with diseases of the maxillofacial region

4. Scope of the discipline and types of academic work

General credit value of the discipline is **2 credit units**.

Type of academic work	Total hours	Semester
		12
Class hours (total)	**48**	**48**
Including:	-	-
Lectures	-	-
Practical training (PT)	48	48
Seminars (S)		
Laboratory research (LR)		
Independent work (total)	**24**	**24**
Total labor intensity hours	**72**	**72**
credit unit	**2**	**2**

5. Content of the discipline

5.1. The content of the discipline sections

№ п/п	Name of the section of discipline	Contents of the section
1.	Odontogenic inflammatory diseases	Anatomy and topographical anatomy of cellular spaces of the maxillofacial region. Clinical characteristics of inflammation. Pathoanatomic and pathophysiological picture of inflammation. Definition of abscess and phlegmon. Ways of spreading purulent infection. Method of treatment of purulent wounds of the maxillofacial region. Principles of drug treatment of acute inflammatory diseases of the maxillofacial region.
2.	Non-firearm fractures of the upper jaw, zygomatic bone, nasal bones	Classification of facial skull fractures. Etiology, pathogenesis, assessment of the severity of damage, general posttraumatic disorders, taking into account age and concomitant pathologies. Features of emergency care for fractures of the upper jaw, zygomatic bone, nasal bones. Prevention, diagnosis and prognosis of post-traumatic complications, the choice of therapeutic tactics, interaction with doctors of related specialties.
3.	Non-firearm fractures of the lower jaw	Classification of fractures of the lower jaw, the mechanisms of their occurrence. Clinic, diagnosis and treatment of patients.
4.	Neoplasm of the maxillofacial area	Classification of tumors of the maxillofacial region. Diagnosis, features of the course and treatment of benign and malignant tumors of the maxillofacial area. Emergency and planned care for patients with tumors of the maxillofacial region. Differential diagnosis of tumors with similar pathological processes. A treatment plan for various tumor processes.
5.	Diseases of the salivary glands	Methods of research of salivary glands, methods of its assessment. Classification, clinical picture and treatment of sialoadenitis, salivary stone disease, tumor lesions of the salivary glands. The technique of diagnostic puncture of the

		glands, removal of stones from the ducts of the salivary glands, extirpation of the submandibular and parotid salivary glands, an algorithm for treating diseases depending on etiopathogenesis.
6.	Types and origin of defects. The basic principles of reconstructive operations in the maxillofacial region	Causes and types of defects of the maxillofacial region. Principles of planning and conducting reconstructive operations in the maxillofacial region. Indications for various types of reconstructive operations. Deontological methods of behavior with patients with defects and deformities of the tissues of the maxillofacial region. Features of the structure of the maxillofacial region and the basic principles of planning restorative treatment, the main components of restorative treatment, types of reconstructive operations and features of their implementation in the maxillofacial region, features of medical rehabilitation of patients with defects and deformities of the maxillofacial region.

5.2. Sections of disciplines and types of classes

№ п/п	Name of the section of discipline	*L*	*PC*	*LR*	*S*	*SRS*	Total hours
1.	Odontogenic inflammatory diseases		**8**			**4**	**12**
2.	Non-firearm fractures of the upper jaw, zygomatic bone, nasal bones		**8**			**4**	**12**
3.	Non-firearm fractures of the lower jaw		**8**			**4**	**12**
4.	Neoplasm of the maxillofacial area		**8**			**4**	**12**
5.	Diseases of the salivary glands		**8**			**4**	**12**
6.	Types and origin of defects. The basic principles of reconstructive operations in the maxillofacial region		**8**			**4**	**12**
	TOTAL		**48**			**24**	**72**

6. Laboratory training *(if available)*
Not provided

7. Practical training (seminars) *(if available)*

№ п/п	№ discipline section	Themes of practical training (seminars)	Labor intensity (hours)
1.	Odontogenic inflammatory diseases	Etiology and pathogenesis of odontogenic inflammatory processes. Periostitis and osteomyelitis of the jaw. Abscesses and phlegmons adjacent to the upper jaw. Abscesses and phlegmons adjacent to the lower jaw. Complications of inflammatory diseases.	8
2.	Non-firearm fractures of the upper jaw,	Etiology, pathogenesis, and classification of facial skull fractures. Fractures of the upper jaw. Fractures of the zygomatic bone and	8

	zygomatic bone, nasal bones	zygomatic arch. Fractures of the nose bones. Conservative and surgical methods of treatment.	
3.	Non-firearm fractures of the lower jaw	Etiology, pathogenesis and classification of mandibular fractures. Mechanisms of occurrence. Conservative and surgical methods of treatment. Prevention of complications.	8
4.	Neoplasm of the maxillofacial area	General principles of diagnosis of maxillofacial neoplasms. General principles of treatment of maxillofacial neoplasms. Precancerous conditions (precancers). Benign tumors of the maxillofacial region. Malignant tumors of the maxillofacial region.	8
5.	Diseases of the salivary glands	Inflammation of the salivary glands (sialoadenitis). Reactive dystrophic diseases of the salivary glands (sialosis). Salivary stone disease (sialolithiasis, calculous sialadenitis). Neoplasms of the salivary glands.	8
6.	Types and origin of defects. The basic principles of reconstructive operations in the maxillofacial region	Plastic surgery with local tissues taken in the vicinity of a defect or deformity or in remote areas of the human body. Free transfer of transplants of soft-woven fabrics. Defects of the jawbones. Bone grafting. Anomalies and deformities of the facial and cerebral skulls. Reconstructive operations on the facial and brain skull.	8

8. Material and technical support of the discipline:

1. Photos of thematic patients.
2. Video recordings of operations.
3. A set of radiographs and CT scans.
4. Projector, laptop
5. Macro-products, models, and training phantoms.
6. Sets of surgical instruments for removing teeth, performing splinting of teeth and jaws, reposition of the zygomatic bone, applying various types of sutures.

9. Information support of the discipline

a) software

- TUIS
- MS office

b) resources of the information and telecommunication network "Internet":

1. RUDN University's EBS and third-party EBS that University students have access to on the based on concluded contracts:

- RUDN University Electronic Library System-RUDN University Electronic Library System http://lib.rudn.ru/MegaPro/Web
- EBS "University Library online" http://www.biblioclub.ru
- EBS Yurayt http://www.biblio-online.ru
- EBS "Student's consultant" www.studentlibrary.ru
- EBS "Lan'" http://e.lanbook.com/

2. Databases and search engines:
- electronic fund of legal and regulatory and technical documentation http://docs.cntd.ru/
- SCOPUS abstract database http://www.elsevierscience.ru/products/scopus/
- WHO Documentation Center http://whodc.mednet.ru/
- electronic library on surgery http://surgerylib.ru

10. Educational and methodological support of the discipline:
a) basic literature

1. Maxillofacial surgery: textbook / edited by A. Yu. Drobyshev, O. O. Yanushevich. - Moscow: GEOTAR-Media, 2018. - 880 p. - ISBN 978-5-9704-4081-0.
2. Surgical dentistry: textbook / under the general editorship of V. V. Afanasyev. - 3rd ed., reprint. - Moscow: GEOTAR-Media, 2016. - 400 p. - ISBN 978-5-9704-3704-9.
3. Surgical dentistry and maxillofacial surgery : national guidelines / ed. by A. A. Kulakov, T. G. Robustova, A. I. Nerobeyev. - Moscow: GEOTAR-Media, 2015. -928 p. - (National guidelines). - ISBN 978-5-9704-3727-8.

b) additional literature

1. Surgical dentistry. Inflammatory and dystrophic diseases of the salivary glands: a textbook / A.M. Panin, I. V. Gaiduk, V. I. Vasiliev [et al.]; edited by A.M. Panin. - 2nd ed., reprint. Electronic text data. - Moscow: Litterra Publ., 2020. ISBN 978-5-4235-0354-3.
2. Features of treatment of odontogenic cystic formations of the lower jaw by cystotomy / B. Ya. Asnin, S. A. Asnina, A. Yu. Drobyshev [et al.] / / Dentistry. - 2020. - No. T. 99 (6). - pp. 33-37.
3. Diseases of teeth and oral cavity: textbook / I. M. Makeeva, S. T. Sokhov, M. Ya. Alimova [et al.]. - Electronic text data. - Moscow: GEOTAR-Media, 2020. - 256 p.: ill. - ISBN 978-5-9704-5675-0.

11. Guidelines for students on mastering the discipline "Maxillofacial surgery"

The text of the medical history should be presented in printed form, a handwritten version is possible, and the text should be written in a neat, clear and legible handwriting, without abbreviating words. The following requirements must be met:

1) the medical history must strictly correspond to the Department of maxillofacial surgery and surgical dentistry;
2) the presentation of clinical data should be extremely accurate, logical, and understandable and consistent;

3) the results of the examination are given in full;
4) all subheadings of sections of the medical history should be highlighted
5) the font of the text "Times New Roman", font size 11 or 12 points, line spacing – single, margins: top-2.5 cm, bottom-3 cm, left-3 cm, right-3 cm, page numbering-bottom center.
6) the medical history must be submitted to the teacher for verification at least two days in advance, otherwise the rating may be reduced;
7) identical medical records signed by different supervisors are not accepted (if one patient is supervised by two or more students, only the data can match medical history and examination, and the sequence of presentation does not have to be the same).
8) a student who has received an unsatisfactory assessment for the medical history must rewrite it based on the teacher's comments;
9) the student does not receive credit in this discipline (it is not allowed before the course exam), if the medical history is not passed, or passed for an unsatisfactory grade.

12. Fund of evaluation funds for conducting intermediate certification of students in the discipline "Maxillofacial surgery".

To assess the level of mastering the educational material of the discipline "Maxillofacial surgery", which includes a list of competencies, indicating the stages of their formation, description of the indicators and criteria of assessment of competencies at different stages of their formation, the description of the scales of assessment, typical assignments, or other materials needed for the assessment of knowledge, skills and (or) experience, describing the stages of formation of competences in the process of development of educational programs, methodological materials that define the procedures for assessing knowledge, skills, abilities and (or) experience of activities that characterize the stages of competence formation are developed in full and are available for students on the disciplines page in the RUDN TUIS System.

The program is compiled in accordance with the requirements of the FSES HE.

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