MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS
Educational Institution
«BELARUSIAN STATE MEDICAL UNIVERSITY»

Контрольный экземпляр

APPROVED
by Rector of the Educational Institution «Belarusian State Medical University»

S.P.Rubnikovich
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Reg. # UD-03-140/2627 /add.

THE CLINICAL PICTURE, DIAGNOSIS AND PROGNOSIS OF THE COURSE AND OUTCOMES OF SEVERE COMPLICATIONS OF ACUTE ODONTOGENIC INFECTION

Curriculum of the educational institution in the additional course for the specialty

7-07-0911-03 «Dentistry»

2026

Curriculum of the additional course is based on the educational program «Клинические проявления, диагностика и прогнозирование течения тяжелых осложнений острой одонтогенной инфекции», approved 30.09.2026 registration # УД-03-139/2627/оп.

COMPILERS:

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RECOMMENDED FOR APPROVAL:

by the Department of Oral Surgery of the Educational Institution «Belarusian State Medical University»
(protocol # 1 of 31.08.2026);

by the Methodological Committee of Dentistry of the Educational Institution «Belarusian State Medical University»
(protocol # 1 of 30.09.2026)

EXPLANATORY NOTE

«Clinical picture, diagnosis and prognosis of the course and outcomes of severe complications of acute odontogenic infections» is the additional course that studies the symptoms, main clinical manifestations and methods of diagnosis, treatment of severe complications of acute odontogenic infections, predicting their course and outcome.

The aim of the additional course «Clinical picture, diagnosis and prognosis of the course and outcomes of severe complications of acute odontogenic infections» is the formation of students' competencies for acquiring scientific and practical knowledge about timely diagnosis at the outpatient stage, the choice of medical tactics, predicting the course of severe complications of infectious inflammatory processes in the maxillofacial area.

The objectives of the additional course are to form students' scientific knowledge about the causes and mechanisms of development of severe complications of infectious inflammatory processes in the maxillofacial area, methods of clinical and paraclinical examination of patients with acute odontogenic processes in the maxillofacial area and neck to determine the most important early clinical manifestations of complications of diseases, predicting the development of complications of infectious inflammatory processes of the maxillofacial region and neck; skills and abilities required for treatment of complications of infectious-inflammatory processes in the maxillofacial region and neck.

Relations to other academic disciplines

Teaching and successful study of the additional course «Clinical picture, diagnosis and prognosis of the course and outcomes of severe complications of acute odontogenic infections» is carried out on the basis of the knowledge and skills acquired by the student in the following sections of the academic discipline «Oral Surgery and Propaedeutics of Surgical Diseases of the Maxillofacial Region», «Maxillofacial Surgery and Outpatient Maxillofacial Surgery».

As a result of studying the additional course «Clinical picture, diagnosis and prognosis of the course and outcomes of severe complications of acute odontogenic infections» the student should

know:

reasons for the development of complications and ways of spreading of acute odontogenic infection;

features of the clinical course of phlebitis of the facial veins, thrombosis of the cavernous sinus, odontogenic mediastinitis, anaerobic infection, sepsis;

modern methods for diagnosing severe complications of acute odontogenic infection;

modern principles of pain relief during primary surgical treatment of an infectious-inflammatory focus in patients with severe complications of acute odontogenic infection;

features of primary surgical treatment of an infectious-inflammatory focus during complications of acute odontogenic infection;

principles of drug treatment of phlebitis of the facial veins, cavernous sinus thrombosis, odontogenic mediastinitis, anaerobic infection, sepsis;

classification of integral intoxication indices;

integral indices of intoxication and modern methods for predicting the course of infectious inflammatory processes in the maxillofacial area;

stages of preventive measures aimed at preventing the development of severe complications of acute odontogenic infection;

be able to:

diagnose severe complications of acute odontogenic infection (phlebitis of the facial veins, cavernous sinus thrombosis, odontogenic mediastinitis, anaerobic infection, sepsis);

correctly interpret data from the results of an objective examination of patients with these diseases;

use integral intoxication indices and modern techniques to predict the course of infectious inflammatory processes in the maxillofacial area;

carry out a set of preventive measures aimed at preventing the development of severe complications of acute odontogenic infection;

master:

methods of clinical diagnosis of severe complications of acute odontogenic infection (phlebitis of the facial veins, thrombosis of the cavernous sinus, odontogenic mediastinitis, anaerobic infection, sepsis);

skills in determining integral intoxication indices to predict the course of infectious inflammatory processes in the maxillofacial area.

Total number of hours for the study of the additional course is 40 academic hours. Classroom hours according to the types of studies: practical classes - 21 hours, student independent work (self-study) - 19 hours.

Intermediate assessment is carried out according to the syllabus of the specialty in the form of a credit (10 semester).

Form of higher education – full-time.

THEMATIC PLAN

Section (topic) name	Number of class hours
	practical
1. Possible severe complications of acute odontogenic infection in the maxillofacial area	**14**
1.1. Features of the clinical course of phlebitis of the facial veins, cavernous sinus thrombosis, acute odontogenic mediastinitis, anaerobic infection in the maxillofacial area	7
1.2. Sepsis as a complication of infectious and inflammatory processes in the maxillofacial area	7
2. Prediction of the course of infectious inflammatory processes in the maxillofacial region	**7**
Total hours	**21**

CONTENT OF THE EDUCATIONAL DISCIPLINE

1. Possible severe complications of acute odontogenic infection in the maxillofacial area

1.1 Features of the clinical course of phlebitis of the facial veins, cavernous sinus thrombosis, acute odontogenic mediastinitis, anaerobic infection in the maxillofacial area

Phlebitis of the facial veins: etiology, pathogenesis, ways of infection spreading, clinical picture, special diagnostic methods, planning of anesthesia and surgical treatment. Prevention of the development of phlebitis of the facial veins in patients with acute odontogenic infection. Examination of temporary disability, medical examination.

Clinical analysis of medical documentation of patients, interpretation of the results of laboratory and instrumental research methods, determination of treatment tactics in accordance with the current clinical protocols of the Ministry of Health of the Republic of Belarus. Studying tables, slides, training videos.

Cavernous sinus thrombosis: etiology, pathogenesis, ways of infection spreading, clinical picture, special diagnostic methods, planning of anesthesia and surgical treatment. Prevention of the development of cavernous sinus thrombosis in patients with acute odontogenic infection. Examination of temporary disability, medical examination.

Clinical analysis of medical documentation of patients, interpretation of the results of laboratory and instrumental research methods, determination of treatment tactics in accordance with the current clinical protocols of the Ministry of Health of the Republic of Belarus. Studying tables, slides, training videos.

Acute odontogenic mediastenitis: etiology, pathogenesis, routes of infection, clinical picture, special diagnostic methods, planning of anesthetic care and surgical treatment. Prevention of the development of mediastenitis in patients with acute odontogenic infection, examination of temporary disability, medical examination.

Clinical analysis of medical documentation of patients, interpretation of the results of laboratory and instrumental research methods, determination of treatment tactics in accordance with the current clinical protocols of the Ministry of Health of the Republic of Belarus. Studying tables, slides, training videos.

Anaerobic infection in the maxillofacial area: etiology, pathogenesis, ways of spreading infection, clinical picture, special diagnostic methods, planning of anesthesia and surgical treatment. Prevention of the development of anaerobic infection in patients with acute odontogenic infection, examination of temporary disability, medical examination.

Clinical analysis of medical documentation of patients, interpretation of the results of laboratory and instrumental research methods, determination of treatment tactics in accordance with the current clinical protocols of the Ministry of Health of the Republic of Belarus. Studying tables, slides, training videos.

1.2. Sepsis as a complication of infectious and inflammatory processes in the maxillofacial area.

Modern concept of sepsis. Etiology, pathogenesis, classification, clinical picture of sepsis, forms of sepsis. Modern diagnostic methods. Determination of treatment tactics for patients with sepsis.

Clinical analysis of medical documentation of patients, interpretation of the results of laboratory and instrumental research methods, determination of treatment tactics in accordance with the current clinical protocols of the Ministry of Health of the Republic of Belarus. Studying tables, slides, training videos.

2. Prediction of the course of infectious inflammatory processes in the maxillofacial region

Intoxication indices.

Characteristics of the leukocyte index of intoxication V.C. Ostrovsky. Characteristics of the integral indicator of severity according to M.M. Solovyov, T.M. Alekhova. Characteristics of the leukocyte index according to Ya.Ya. Kalf-Kalifu. Characteristics of the general index of endogenous intoxication according to M.M. Malakhova. Characteristics of blood leukocyte shift indices.

Examination of patients with infectious and inflammatory diseases of the maxillofacial area and neck, collection of complaints and medical history; clinical examination; drawing up a plan for additional examination; interpretation of the results of laboratory and instrumental research methods, determination of treatment tactics in accordance with the current clinical protocols of the Ministry of Health of the Republic of Belarus. Draw up medical documentation.

Indices of nonspecific reactivity.

Index of ratio of neutrophils and leukocytes according to V.M. Ugryumov. Neutrophil to monocyte ratio index. Lymphocyte to monocyte ratio index. Lymphocyte to eosinophil ratio index.

Examination of patients with infectious and inflammatory diseases of the maxillofacial area and neck, collection of complaints and medical history; clinical examination; drawing up a plan for additional examination; interpretation of the results of laboratory and instrumental research methods, determination of treatment tactics in accordance with the current clinical protocols of the Ministry of Health of the Republic of Belarus. Draw up medical documentation.

Indices of active inflammation.

Ratio index of leukocytes and ESR. Lymphocytic granulocyte index.

Examination of patients with infectious and inflammatory diseases of the maxillofacial area and neck, collection of complaints and medical history; clinical examination; drawing up a plan for additional examination; interpretation of the results of laboratory and instrumental research methods, determination of treatment tactics in accordance with the current clinical protocols of the Ministry of Health of the Republic of Belarus. Draw up medical documentation.

New and non-integral methods for predicting the course of infectious and inflammatory processes in the maxillofacial area. Prediction of the course of odontogenic inflammatory processes in the maxillofacial region according to the contact thermometry test in the cutaneous projection of acupuncture points of the

maxillofacial region. Prediction of the course of purulent-inflammatory processes in the maxillofacial area based on biochemical readings of oral fluid. Prediction of the course of purulent-inflammatory processes in the maxillofacial area based on microcrystallization of oral fluid.

Examination of patients with infectious and inflammatory diseases of the maxillofacial area and neck, collection of complaints and medical history; clinical examination; drawing up a plan for additional examination; interpretation of the results of laboratory and instrumental research methods, determination of treatment tactics in accordance with the current clinical protocols of the Ministry of Health of the Republic of Belarus. Draw up medical documentation.

Ways of the preventing of complications of acute odontogenic infection. Primary, secondary prevention of complications of acute odontogenic infection. Ways to prevent complications of acute odontogenic infection.

Examination of patients with infectious and inflammatory diseases of the maxillofacial area and neck, collection of complaints and medical history; clinical examination; drawing up a plan for additional examination; interpretation of the results of laboratory and instrumental research methods, determination of treatment tactics in accordance with the current clinical protocols of the Ministry of Health of the Republic of Belarus. Draw up medical documentation.

ACADEMIC DISCIPLINE CURRICULAR CHART

Section, topic #	Section (topic) name	Number of hours	Self-studies	Form of control
		practical		
1.	**Possible severe complications of acute odontogenic infection in the maxillofacial area**	**14**	**9**	
1.1.	Features of the clinical course of phlebitis of the facial veins, cavernous sinus thrombosis, acute odontogenic mediastinitis, anaerobic infection in the maxillofacial area	7	7	tests, interviews, abstracts
1.2.	Sepsis as a complication of infectious and inflammatory processes in the maxillofacial area	7	2	tests, interviews
2.	**Prediction of the course of infectious inflammatory processes in the maxillofacial region**	**7**	**10**	
	Intoxication indices	7	10	tests, interviews, credit
	Indices of nonspecific reactivity			
	Indices of active inflammation.			
	New and non-integral methods for predicting the course of infectious and inflammatory processes in the maxillofacial area.			
	Ways of the preventing of complications of acute odontogenic infection			
	Total hours	**21**	**19**	

INFORMATION AND INSTRUCTIONAL UNIT

LITERATURE

Basic (relevant):

1. Oral surgery : textbook / ed. by S. V. Tarasenko. – Moscow : Geotar-Media, 2023. – 639 p.

Additional:

2. Perioperative Assessment of the Maxillofacial Surgery Patient: Problem-based Patient Management / Ferneini Elie M., Bennett Jeffrey D. (eds.). - Springer, 2018. — 702 p.
3. New Insights into Oral and Maxillofacial Surgery / Gideon Schmidt. - HAYLE MEDICAL, 2019. – 209 p.
4. Contemporary Oral and Maxillofacial Surgery/ James R. Hupp DMD MD JD MBA, Myron R. Tucker DDS, Edward Ellis III DDS MS. – 7th edition. – Mosby, 2018. – 721 p.
5. Clinician's Handbook of Oral and Maxillofacial Surgery / Daniel M. Laskin, Eric R. Carlson. – 2nd edition. - Quintessence Pub Co, 2018. – 624 p.

Electronic courseware for the additional course «The Clinical Picture, Diagnosis and Prognosis of the Course and Outcomes of Severe Complications of Acute Odontogenic Infection (Elective)»

6. https://etest.bsmu.by/course/view.php?id=1273

LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms of current certification are used to diagnose competencies:
defense of the abstract (report);
interview
tests.

LIST OF AVAILABLE TEACHING METHODS

Traditional method;
active (interactive) methods:
training based on simulation technologies;
Problem-Based Learning (PBL);
Team-Based Learning (TBL);
Case-Based Learning (CBL);
Research-Based Learning (RBL).

LIST OF PRACTICAL SKILLS

Name of practical skills	Form of practical skills control
1. Interpretation of the results of laboratory research methods.	Решение ситуационных задач
2. Interpretation of the results of radiological research methods.	Solving of situational cases
3. Treatment management for patients with phlebitis of the facial veins.	Solving of situational cases
4. Treatment management for patients with cavernous sinus thrombosis.	Solving of situational cases
5. Treatment management for patients with odontogenic mediastinitis.	Solving of situational cases
6. Treatment management for patients with anaerobic infection in maxilla-facial region.	Solving of situational cases
7. Treatment management for patients with odontogenic sepsis.	Solving of situational cases
8. Prediction of the course of infectious and inflammatory processes in the maxillofacial area using intoxication indices, indices of nonspecific reactivity, indices of active inflammation, microcrystallization of oral fluid.	Solving of situational cases

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Curriculum content, composition and the accompanying documents comply with the established requirements.

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30.09.2026

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30.09.2026