

**Thematic plan of seminars  
in the discipline " Immunology-Clinical immunology"  
for students of the educational program  
specialist degree  
in the specialty/direction of training 31.05.03 Dentistry,  
direction (profile) Dentistry,  
form of study is full-time  
for the 2023-2024 academic year**

№	Thematic blocks	Hours (academic)
1.	Introduction into immunology. History of immunology. Subject and tasks of the immunology. Immunity types.	2
	Innate immunity. Components of innate immunity: physical, chemical, biological barriers.	1
2.	Antigens, basic concepts. Properties of antigens.	1
	Antigen processing and presentation. HLA molecules and genes.	2
3.	The humoral immune response. Cellular basis.	1
	Antibodies, nature, structure, types, functions. Serologic methods of research.	2
4.	Cellular immunity of the oral cavity. Differentiation of T-lymphocytes. The main subpopulations of T-lymphocytes.	2
	Specific and nonspecific cellular cytotoxicity, mechanism, biological significance.	1
5.	The complement system and its functions.	1
	Cytokines as factors of regulation of oral immune response.	2
6.	Infection and immunity. Immune response in bacterial, viral, fungal infections of the oral cavity, parasitic infestations.	2
	Pathways of elimination of the pathogen. Mechanisms of elimination from immune defense.	1
7.	Antitumor immunity. The concept of tumor markers. Types of tumor markers. Mechanisms of antitumor immunity.	2
	Immunologic tolerance. Natural and artificial tolerance. Mechanisms. Features.	1
8.	Concluding class on I. Section "Structure and functions of the immune system. Antigen processing and presentation. Cellular and humoral immune response, complement system"	1
9.	Subject and objectives of clinical immunology in dentistry. The main types of immunopathologic conditions in dentistry.	2
	Age specific features of the immune system.	1
10.	Assessment of immune status, principles and methods.	2
	Lymphoproliferative diseases. Infections of the immune system.	1
11.	Immunodeficiency states. Features of the dental status of children with primary immunodeficiencies.	2
	Autoimmune diseases.	1

12.	The concept of allergy. Classification of allergic reactions. Main allergens.	2
	Allergic diseases in dental practice.	1
13.	Immediate hypersensitivity. Etiology. Pathogenesis.	2
	Pseudoallergic reactions. Etiology. Pathogenesis.	1
14.	Allergic diseases of the respiratory tract and skin. Main allergens. Clinical manifestations. Diagnosis. Principles of treatment and prophylaxis.	2
	Allergic diseases of the skin. Main allergens. Clinical manifestations. Diagnosis. Principles of treatment and prophylaxis.	1
15.	Drug allergies. Part 1. Clinical manifestations. Diagnosis.	2
	Drug allergy. Part 2. Principles of treatment and prophylaxis.	1
16.	Anaphylactic shock and other emergency conditions due to immunopathologic mechanisms.	2
	Immunotropic drugs in dental practice. Vaccination.	1
	Intermediate certification	2
	Total	48

<sup>1</sup> -Subject

<sup>2</sup> - essential content (if necessary)

Considered at the meeting of the department of Immunology and allergology "31"  
May 2023, protocol No 16

Head of the Department



Belan E.B.