

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

№	Topics of lectures	Hours (academic)
1.	Introduction to immunology <sup>1</sup> . The concept of immunity. The subject and tasks of immunology. History of immunology. Structure and functional organization of the immune system. Types of immunity. Components of innate immunity: physical, chemical, biological barriers. Antigens, basic concepts. Properties of antigens. Antigen-presenting cells. Presentation of exo- and endogenous antigens. <sup>2</sup>	2
2.	Humoral immune response: cellular basis; antibodies, nature, structure, types, functions, dynamics of production in primary and secondary immune responses. Serological research methods.	2
3.	Cellular immunity: differentiation of T-lymphocytes; main subpopulations of T-lymphocytes; antigen recognition; cellular cytotoxicity, mechanism, biological significance; regulatory functions of T-lymphocytes; methods of studying cellular immunity.	2
4.	Cytokines as factors of regulation of oral immune response. The complement system and its functions. Immunologic tolerance <sup>1</sup> . Natural and artificial tolerance. Mechanisms. <sup>2</sup>	2
5.	Infection and immunity: immune response in bacterial, viral, fungal infections, helminth infestations; ways of "escaping" infectious pathogens from immune surveillance.	2
6.	Antitumor immunity <sup>1</sup> . The concept of tumor markers. Types of tumor markers. Mechanisms of antitumor immunity. <sup>2</sup>	2
7.	Age specific features of the immune system. Subject and tasks of clinical immunology in dentistry. Assessment of immune status, principles and methods <sup>1</sup> . The main types of immunopathologic conditions in dentistry. <sup>2</sup>	2

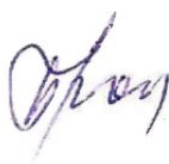
8.	Immunodeficiency states in the practice of a dentist <sup>1</sup> . Infections of the immune system <sup>1</sup> . Primary and secondary immunodeficiencies. <sup>2</sup>	2
9.	The concept of allergy. Classification of allergic reactions <sup>1</sup> . Main allergens. Allergic diseases in dental practice. Hypersensitivity of immediate type. Pseudoallergic reactions. Etiology. Pathogenesis. <sup>2</sup>	2
10.	Drug allergy <sup>1</sup> . Cytotoxic, immunocomplex, delayed allergic reactions in dentistry. Cross-reactions between drugs. Diagnosis and treatment. <sup>2</sup>	2
11.	Immunotropic drugs in dental practice <sup>1</sup> . Immunotropic therapy (immunosuppressive therapy, immunostimulating agents, monoclonal antibodies, cytokines, anti-cytokine therapy, allergen-specific immunotherapy). Vaccination. <sup>2</sup>	2
12.	Emergency conditions due to immunopathologic mechanisms in the practice of the dentist <sup>1</sup> . Etiology, immunopathogenesis, first medical emergency care. <sup>2</sup>	2
	Total	24

<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.