

Questions to prepare for the first credit

1. Immunoassays in humans.
2. Rules of the clinical assessment of immunoassays.
3. A case history in immunology and allergy.
4. Predominant mechanisms of innate and adaptive immunity depending on the extracellular or intracellular location of pathogens.
5. Skin and mucosal immune system.
6. Immune-based diseases.
7. Classification of immunodeficiencies (primary and secondary).
8. Samples of primary immunodeficiencies.
9. Minor anomalies of the immune system.
10. Indications to performing immunoassays if a primary immunodeficiency suspects in children and adults.
11. Main principles of therapy for primary immunodeficiencies.
12. Secondary immunocompromised conditions in recurrent viral and bacterial infections of the respiratory tract.
13. Secondary immunocompromised conditions in malnutrition, post-traumatic stress disorder, and aging.
14. Secondary immunocompromised conditions in radiation therapy and particular medications.
15. Secondary immunocompromised conditions in protein-losing enteropathy, burns, and uremia.
16. Secondary immunocompromised conditions in loss of lymphoid organs.
17. History of HIV/AIDS discovery. Structure of HIV.
18. Etiology and epidemiology of HIV infection. Risk groups and infection routes.
19. Clinical classification of HIV infection's stages.
20. HIV/AIDS in children.
21. Diagnostics of HIV infection. The peculiarity of blood analysis and immunoassays.
22. Approaches to therapy for AIDS.
23. Perspectives of HIV infection eradication.
24. Immune enhancement therapy as a part of interventional immunology.
25. Products of the thymus and spleen
26. Immunoglobulin therapy.
27. Recombinant cytokines, including interferons.
28. Synthetic products.
29. Mucosal autovaccines, including a mixture of bacterial lysates.
30. Immune enhancement metabolites.
31. Principles of vaccination.

Questions to prepare for the second credit

1. Classification of immunopathologic reactions after Gell-Coombs.
2. The phases of the allergic process after A.D.Ado.
3. Cytotoxic reactions. Examples of type II hypersensitivity-based diseases.
4. Immune complexes disorders. Examples of type III hypersensitivity-based diseases.
5. Delayed type of hypersensitivity. Examples of type IV hypersensitivity-based diseases.
6. Type I hypersensitivity-based allergic diseases. Definition of "atopy." Atopic diseases. Immunopathogenesis of atopic inflammation (early and late phases).
7. Pseudo-allergic reactions. Differentiation between pseudo-allergic and atopic reactions.
8. Exoallergens, their systematization, and standardization.
9. Allergic diagnostics *in vivo*. Setting up allergic skin tests and reading.
10. Allergic diagnostics *in vitro*.

11. Etiology and immunopathogenesis of allergic rhinitis.
 12. Classification and clinical symptoms of allergic rhinitis in children and adults.
 13. Principles of therapy for allergic rhinitis.
 14. Mechanism of action and indications for antihistamines.
 15. Mechanisms of action and indications for topic corticosteroids.
 16. Mechanism of action and indications for membrane stabilizers.
 17. Mechanism of action and indications for anti-leukotrienes.
 18. Anti-allergy medications-based on monoclonal antibodies.
 19. Allergen-specific immunotherapy (ASIT), mechanisms of action, indications, contraindications, and different methods of performing. Efficacy of ASIT.
 20. Etiology and immunopathogenesis of bronchial asthma.
 21. Classification of bronchial asthma.
 22. Clinical symptoms and differential diagnostics of asthma.
 23. Allergological and functional diagnostics of asthma.
 24. Therapy for bronchial asthma.
 25. Food allergy and main food allergens. Target organs of food allergy.
 26. Atopic dermatitis, etiopathogenesis, clinical symptoms, diagnostics, and therapy.
 27. Immunopathogenesis of autoimmune diseases. Samples of them depending on a type of autoantigens and location of the process.
 28. Autoimmune thyroiditis.
 29. Rheumatoid arthritis.
 30. Immune system and cancer growth.
 31. Tumor-associated antigens. Immunodiagnostics in oncology.
 32. Concept of immunoediting.
- The modern approaches to treatment for cancer. The role of immunotherapy.

Credit assessment criteria:

- «excellent» is given to the student, which made an in-deeply study of the program, can exhaustively, consistently, clearly, logically, and harmoniously set out the material of the program, capable of using theoretical knowledge to solve case histories, knows additional literature, convincingly and logically substantiates responses to questions, owns versatile skills and methods performing practical tasks;
- «good» is given to the student, which firmly knows the main material and basic literature related to the program, rightly uses theoretical postulates performing practical assignments and answering related questions, owns required skills, and methods for further study and professional activity;
- «satisfactory» is given to the student, if he/she displays only a significant material of the program and know only the basic literature, use theoretical material not always correct to substantiate responses to questions of the program; as a rule, «satisfactory» is given to the student who has difficulties performing any assignments but capable of correcting errors under the professor's leadership;
- «poor» is given to the student, which does not show knowledge of the significant part of the program, has essential errors, can't perform practical assignments; as a rule, «poor» is given to the student who is unable to continue further study or get started the professional activity with no additional lessons.