DEPARTMENT OF PROPAEDEUTICS OF INTERNAL DISEASES,
"BELARUS STATE MEDICAL UNIVERSITY"

EXAMINATION QUESTIONS AND LIST OF PRACTICAL SKILLS

for the discipline "Clinical immunology, allergology"

for specialty "General Medicine"

5th year, 9(10)th semester

1. Organization of allergy care and immunology treatment in the Republic of Belarus.
2. Indications for immunological examination.
3. Structure and functions of immunity. Factors of non-specific resistance of the organism. Differentiating CD antigens. Human leukocyte antigen system (HLA system). Cytokines. Innate and adaptive immunity.
4. Regulation of the immune response. Cellular and humoral types of immune response. Immunopathological reactions (according to Gell-Coombs).
5. Immunodiagnostics. Enzyme immunoassay, radioimmune, immunofluorescent methods. Immunophenotyping
6. Concept of immune status, levels of immune status assessment. Assessment of innate immunity (level of granulocytes, monocytes, complement system and phagocytosis indicators).
7. Assessment of adaptive immunity: cellular immunity (lymphocyte subpopulations, lymphocyte blast transformation reaction), humoral immunity (immunoglobulins A, G, M, E, D, immune complex level, cytokine determination).
8. Immunodeficiency: definition, epidemiology, classification. Primary (congenital) and secondary immunodeficiency.
9. Clinical forms and manifestations of immunodeficiencies in children and adults. Humoral, cellular and combined immunodeficiency. Deficiencies of the complement system. Defects of phagocytosis.
10. Primary immunodeficiency in adults: anamnesis, clinical picture, laboratory diagnostics.
11. Common variable immunodeficiency (CVID): clinical presentation, diagnostics, treatment.
12. Hyper-IgE syndrome (Job's syndrome): clinical presentation, diagnostics, treatment.
13. Chronic granulomatous disease: clinical presentation, diagnostics, treatment.
14. Hereditary angioedema (HAE): clinical features, diagnostics, treatment.
15. Selective IgA deficiency: clinical features, diagnostics, treatment.
16. Autoinflammatory immunodeficiency syndromes.
17. Principles of treatment of primary immunodeficiency. Features of antibacterial and antiviral therapy of immunodeficiency.
18. Secondary immunodeficiency, causes, classification, clinical manifestations, laboratory diagnostics
19. HIV infection, clinical and laboratory signs, stages.
20. Modern immunomodulatory drugs.

21. Allergens, classification. Non-infectious and infectious allergens. Classification of allergic reactions.
22. Allergology examination in vitro and in vivo.
23. Drug hypersensitivity: classification, pathogenesis, clinical manifestations, diagnosis and differential diagnosis, medical history, skin tests, provocation tests, laboratory methods, clinical evaluation. Visceral involvement in drug hypersensitivity.
24. Angioedema: pathogenesis, clinical manifestations, emergency medical care.
25. Lesions of the skin and mucous membranes in case of allergy. Lyell's syndrome, Stevens-Johnson syndrome. Clinical manifestation, principles of treatment.
26. Anaphylaxis. Anaphylactic shock. Clinical manifestations. Emergency therapy for shock. Prevention of anaphylactic reactions.
27. Bronchial asthma, classification. Phenotypes of bronchial asthma. Clinical manifestations, laboratory and instrumental diagnostics. Principles of drug treatment of bronchial asthma: drugs of basic therapy and drugs of emergency care.
28. Allergic rhinitis, year-round and seasonal, clinical picture, diagnostics
29. Food allergy. Types of food intolerance. Food allergens, food additives. Differential and specific diagnostics of food allergy (food diary, elimination tests, provocative tests), treatment, elimination diets, non-specific and specific therapy. Пищевая аллергия: виды пищевых аллергенов, клинические проявления, диагностика пищевой аллергии, неспецифическая и специфическая терапия.
30. Latex allergy, clinical picture, diagnostics and treatment.
31. Allergic dermatitis: clinical manifestations, diagnostics, treatment, prevention of exacerbations.
32. Atopic dermatitis in adults: clinical presentation, diagnostics and treatment.
33. Diagnostic algorithm, treatment tactics for acute and chronic urticaria.
34. Transplantation immunity. Transplant rejection.
35. Immunology of reproduction: immunological infertility, miscarriage, the influence of the mother's immune status on the formation of the functional systems of the fetus, immunologic treatment during pregnancy.
36. Immunological methods of diagnostics of autoimmune diseases of connective tissue, liver, kidneys, nervous system, intestines.
37. Treatment based on immunological principles. CAR T-cell therapy. Biological therapy. Immunoglobulin-based drugs.
38. Vaccination, mechanisms, local and systemic complications.

Head of the Department  Edward A. Dotsenko.