

ANNOTATION
work program of academic disciplines
"Immunology"

Speciality	05/31/01 "Medicine"
Interim certification form	In accordance with the RUP
Number of credits	2

The work program of the academic discipline "Immunology" is compiled in accordance with the requirements of Federal State Educational Standard 31.05.01 "General Medicine".

1. The purpose of studying the discipline

Target Mastering the academic discipline "Immunology" consists of preparing students for independent work on the clinical diagnosis of syndromes in children, which are based on the exclusion of immunopathological mechanisms.

2. Summary of the discipline Section 1:

"Fundamentals of immunology" Section contents

Organs of the immune system, cellular and humoral components of the immune system, ontogenesis of the human immune system. Innate and adaptive immunity, means of defense and implementation of the immune response, regulation of the immune response, genetic basis of the immune response.

Section 2: "Assessing the state of the immune system"

Section contents

Collection of immunological history and characteristics of the main immunopathological syndromes (infectious, allergic, autoimmune, lymphoproliferative, primary and secondary immunodeficiencies). Immune status and principles of its assessment. Age-related characteristics of the immune factor. Methods for studying lymphocytes, assessment of the functional state of phagocytes, basic methods for determining antigens, determination of complement, tests of the first and second levels, their clinical interpretation.

Section 3: "Allergology".

Section Contents

International classification of hypersensitivity. Determination of appearance, stage of development of the condition. Allergens and their classification. Types of allergic reactions according to the categories of P. Gell and R. Coombs. Anaphylactic shock, variants and stages of development, mechanisms of formation, principles of emergency care. Atopy (atopic dermatitis, rhinitis, bronchial asthma - etiology, pathogenesis, clinic, diagnosis, treatment. Drug allergies (etiology, clinic, diagnosis, treatment and prevention). Food allergy (the most important food allergens, eating behavior patterns in children and adults, clinic), diagnosis, treatment and prevention). Insect allergy. Non-allergic hypersensitivity, the main mechanisms of occurrence.

Section 4: "Immunodeficiencies"

Section contents

Genetics of immunodeficiencies, features of inheritance. Congenital immunodeficiencies (classification, variants of the disease, diagnosis, treatment tactics). Congenital immunodeficiencies in adults. Secondary immunological deficiency (SID) - classification, theory, positive options, diagnosis and treatment. The role of VIN in the pathogenesis of various human diseases.

Section 5: "Autoimmune pathology."

Section Contents

Immunological tolerance and autotolerance, mechanisms of development of autoaggression, classification of autoimmune diseases. Systemic lupus erythematosus, immunopathogenesis, main manifestations, immunodiagnosis, treatment. Rheumatoid arthritis, immunopathogenesis, immunodiagnosis, main diseases, treatment. Systemic vasculitis, classification, pathogenesis, effective forms of diagnosis, treatment. Autoimmune aspects of the endocrine system. Antiphospholipid syndrome, clinical picture, diagnosis, treatment.

Section 6: "Immunotropic therapy."

Section Contents

Classification of immunotropic drugs. Immunosuppressants - classification and mechanisms of action, indications for use, changes, pronounced effects. Glucocorticosteroid drugs - mechanisms of action, reasons for use, difficulties, tactics for choosing a treatment regimen. Immunostimulants - classification and mechanisms of action, indications for use, deviations, pronounced effects. Immunomodulators - mechanisms of action, reasons for use, tactics for choosing a treatment regimen.