

CONTENT OF THE SUBJECT

Subject:	Clinical Immunology		
Study programme:	<i>General Medicine</i>	Study Period:	<i>9. semester</i>
Evaluation:	<i>Graduated</i>	Subject Type:	<i>Compulsory Elective Courses</i>
Content:	<i>0 h. lectures and 1 h. practical exercises / week</i>		<i>Total 14 hours</i>

Department: **Department of Paediatrics and Adolescent Medicine UPJŠ**
Faculty of Medicine and Children's University Hospital in Košice

Week	Seminars	Practical classes
1.	Introduction to Immunology Definition of terms, classification of immune disorders, pathophysiology Allergy, atopy, types of hypersensitivity reactions	
2.	Hypersensitivity Reactions I Allergic dermatitis Contact dermatitis Urticaria Angioedema Allergic rhinoconjunctivitis Bronchial asthma Food allergy/histamine intolerance (HIT)	Laboratory diagnosis of hypersensitivity reactions Principles of the ELISA method – determination of total and specific IgE Skin prick tests
3.	Hypersensitivity Reactions II Anaphylaxis/anaphylactic shock; pseudoallergic reactions Drug hypersensitivity reactions Transfusion reactions	
4.	Autoimmune Diseases I Kawasaki disease IgA vasculitis (Henoch–Schönlein purpura) Psoriasis vulgaris Autoimmune anaemias Immune thrombocytopenic purpura	Interpretation of component-resolved diagnostic results Interpretation of spirometry results

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5.	Autoimmune Diseases II Atrophic gastritis and pernicious anaemia Coeliac disease Inflammatory bowel diseases Autoimmune hepatitis	
6.	Autoimmune Diseases III Multiple sclerosis Hashimoto thyroiditis Graves–Basedow disease Type 1 diabetes mellitus	Clinical work with patients on the ward
7.	Autoimmune Diseases IV Juvenile idiopathic arthritis Rheumatoid arthritis Lupus erythematosus	
8.	Immunodeficiencies I Inborn errors of innate immunity – general manifestations and classification Inborn errors of adaptive humoral immunity Inborn errors of cellular immunity Combined immunodeficiencies	Clinical work with patients on the ward
9.	Immunodeficiencies II Secondary immunodeficiencies Iatrogenic immunodeficiencies	
10.	Transplantation Immunology Transplantation nomenclature Host-versus-graft (HvG) and graft-versus-host (GvH) reactions Exceptions to graft rejection Kidney, haematopoietic stem cell, and other organ transplantation	Centre for Simulation and Virtual Medicine
11.	Immunology of Pregnancy – Fetomaternal Relationships The immunological paradox of pregnancy and fetal tolerance Role of the maternal immune system in fetal tolerance Development of fetal and neonatal immunity Rh incompatibility	

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12.	Tumours and the Immune System Aetiology of tumours Translocations in malignant transformation Immunoediting and the role of inflammation in tumorigenesis Effector mechanisms of antitumour immunity Metastatic process Mechanisms of malignant-cell escape from immune effector functions Immunodiagnostics and immunotherapy of tumours	Visit to the Clinical Immunology Laboratory
13.	Autoinflammatory Diseases	
14.	Manipulation of Immune Mechanisms Immunoprevention and immunoprophylaxis Immunostimulation and immunosuppression Types of vaccines and the immunisation schedule in Slovakia Intravenous immunoglobulins Monoclonal antibodies and cytokines in therapy Biological therapy Gene therapy Peptide therapy	Final examination