JAGIELLONIAN UNIVERSITY MEDICAL COLLEGE

Clinical Immunology

Educational subject description sheet

Basic information

Department Faculty of Medicine	**Didactic cycle** 2016/17
Field of study Medical Program	**Realization year** 2019/20
Study level long-cycle master's degree program	**Lecture languages** English
Study form full-time	**Block** obligatory for passing in the course of studies
Education profile general academic	**Mandatory** obligatory
Disciplines Medical science	**Examination** examination
Subject related to scientific research Yes	**Standard group** E. Clinical non-procedural medical disciplines

Subject coordinator	Maciej Siedlar, Anna Szaflarska
Lecturer	Maciej Siedlar, Jolanta Goździk, Aleksandra Krasowska-Kwiecień, Anna Szaflarska, Jarosław Baran, Karolina Bukowska-Strakova

Periods	**Examination**	**Number of ECTS points**
Semester 7, Semester 8	examination **Activities and hours** seminar: 12, clinical classes: 18	2.0

Goals

C1	To gain a basic knowledge in the field of clinical immunology and transplantology important to further education in paediatrics, oncology and internal diseases.

Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods

Knowledge – Student knows and understands:			
W1	symptoms and course of diseases	O.W2	multiple choice test
W2	methods of diagnostic and therapeutic procedures appropriate for specific disease states	O.W3	multiple choice test
Skills – Student can:			
U1	identify medical problems and prioritize medical management	O.U1	assessment by the teacher
U2	plan the diagnostic procedure and interpret its results	O.U3	assessment by the teacher
U3	implement appropriate and safe therapeutic treatment and predict its effects	O.U4	assessment by the teacher
U4	plan diagnostic, therapeutic and prophylactic procedures	E.U16	assessment by the teacher
U5	interpret the results of laboratory tests and identify the causes of abnormalities	E.U24	credit
U6	identify life-threatening conditions that require immediate medical intervention	O.U2	assessment by the teacher
U7	plan own learning activities and constantly learn in order to update own knowledge	O.U5	assessment by the teacher
U8	maintain patient's medical records	E.U38	assessment by the teacher
U9	communicate with the patient and his family in an atmosphere of trust, taking into account the needs of the patient	O.U7	assessment by the teacher
U10	communicate and share knowledge with colleagues in a team	O.U8	assessment by the teacher
U11	critically evaluate the results of scientific research and adequately justify the position	O.U9	multiple choice test
U12	carry out a physical examination of a child of all ages	E.U4	credit
U13	carry out a medical interview with the child and his or her family	E.U2	assessment by the teacher
U14	plan specialist consultations	E.U32	assessment by the teacher
Social competences – Student is ready to:			
K1	to establish and maintain deep and respectful contact with patients and to show understanding for differences in world views and cultures	O.K1	assessment by the teacher
K2	to be guided by the well-being of a patient	O.K2	assessment by the teacher
K3	respect medical confidentiality and patients' rights	O.K3	assessment by the teacher
K4	take actions towards the patient on the basis of ethical norms and principles, with an awareness of the social determinants and limitations of the disease	O.K4	assessment by the teacher
K5	use objective sources of information	O.K7	multiple choice test

K6	formulate conclusions from own measurements or observations	O.K8	assessment by the teacher

Calculation of ECTS points

Activity form	Activity hours*
seminar	10
classes	8
preparation for classes	2
preparation for examination	8
preparation for classes	2

Student workload	**Hours** 30
Workload involving teacher	**Hours** 20
Practical workload	**Hours** 8

* hour means 45 minutes

Study content

No.	Course content	Subject's learning outcomes	Activities
1.	Primary and secondary immunodeficiencies: pathogenesis, clinical symptoms, treatment	W1, W2, U1, U10, U11, U12, U13, U14, U2, U3, U4, U5, U6, U7, U8, U9, K1, K2, K3, K4, K5, K6	classes, seminar
2.	Diagnosis of immunodeficiency. Laboratory tests assessing humoral immunity (immunoglobulin level, specific antibodies, level of circulating B lymphocytes). cellular immunity: Laboratory tests assessing cellular immunity (assessment of T lymphocyte levels and their subpopulations. In vitro functional tests - assessment of lymphocyte response after mitogen and antigen stimulation). Examination of granulocyte function, chemiluminescence test. Assessment of adhesion molecule expression. Flow cytometry. Clinical interpretation of test results	U5, K6	classes, seminar
3.	Autoimmune diseases generalized and organ-related. Immunopathogenesis, immunodiagnostics. The clinical significance of autoantibodies. Differential diagnosis of autoimmune diseases including autoimmune gastrointestinal disorders Diagnostics of organ-specific autoimmune diseases: liver, gastrointestinal tract, endocrine glands, immunological cytopenia.	W1, U2, U5, K6	classes, seminar

4.	Fundamentals of transplantology: HLA antigens, recipient-donor selection, (antibodies panel, cross-test), transplant rejection. Bone marrow / stem cell transplantation, clinical indications, GvH disease, management of patients before and after transplantation.	U11, U2, U3, U4, U6, U7, U9, K1, K2, K3, K4, K5, K6	classes, seminar
5.	Immunotherapy,immunosuppression Immune problems in cancer: host anti-tumor response, tumor-associated antigens and their role in the diagnosis and monitoring of cancer, the role of immunodetection, cancer immunotherapy	U11, K5	seminar

Course advanced

Teaching methods:

case study, clinical classes, laboratories (labs), seminar, practical classes

Activities	Examination methods	Credit conditions
seminar	multiple choice test	final test: multiple choice test containing 30 questions, 5 answers for each question, only one answer is correct
clinical classes	multiple choice test, credit, assessment by the teacher	final test: multiple choice test containing 30 questions, 5 answers for each question, only one answer is correct

Additional info

Absence from classes: students absent from classes for justified reasons must do their classes within the time agreed with the teacher. An unjustified absence results in failure to pass the exam on the first date. A student who was not allowed to pass on the first date due to unjustified absences may proceed to the second date of exam only after completing the outstanding classes.

Entry requirements

Immunology – the knowledge in the field of basics of immunology

Literature

Obligatory

1. "Clinical Immunology" - Jonathan Brostoff, Glenis K. Scadding, David Male, Ivan M. Roitt Publicado por Mosby (2006)

Optional

1. "Essentials of Clinical Immunology" Helen Chapel, Mansel Haeney, Siraj Misbah and Neil Snowden; Wiley-Blackwell, fourth edition

Standard effects

Code	Content
E.U2	carry out a medical interview with the child and his or her family
E.U4	carry out a physical examination of a child of all ages
E.U16	plan diagnostic, therapeutic and prophylactic procedures
E.U24	interpret the results of laboratory tests and identify the causes of abnormalities
E.U32	plan specialist consultations
E.U38	maintain patient's medical records
O.K1	to establish and maintain deep and respectful contact with patients and to show understanding for differences in world views and cultures
O.K2	to be guided by the well-being of a patient
O.K3	respect medical confidentiality and patients' rights
O.K4	take actions towards the patient on the basis of ethical norms and principles, with an awareness of the social determinants and limitations of the disease
O.K7	use objective sources of information
O.K8	formulate conclusions from own measurements or observations
O.U1	identify medical problems and prioritize medical management
O.U2	identify life-threatening conditions that require immediate medical intervention
O.U3	plan the diagnostic procedure and interpret its results
O.U4	implement appropriate and safe therapeutic treatment and predict its effects
O.U5	plan own learning activities and constantly learn in order to update own knowledge
O.U7	communicate with the patient and his family in an atmosphere of trust, taking into account the needs of the patient
O.U8	communicate and share knowledge with colleagues in a team
O.U9	critically evaluate the results of scientific research and adequately justify the position
O.W2	symptoms and course of diseases
O.W3	methods of diagnostic and therapeutic procedures appropriate for specific disease states