



Department of Nephrology and Transplantation Medicine					11														
TOTAL per year:			48		192														

Educational objectives (max. 6 items)
 C1. To acquire the knowledge of taking history and performing physical examination in adult patient.
 C2. To acquire the knowledge of the symptomatology of hormonal, haematological, cardiovascular, occupational, rheumatoid, digestive system and nephrology disorders in adult patients.
 C3. To develop the skills of interpretation of abnormalities found on examination.
 C4. To develop the ability to perform differential diagnosis in adult patients.
 C5. To know the rules of the contemporary treatment regimens of internal diseases.

Education result matrix for module/course in relation to verification methods of the intended education result and the type of class

Number of course education result	Number of major education result	Student who completes the module/course knows/is able to	Methods of verification of intended education results (forming and summarising)	Form of didactic class <i>**enter the abbreviation</i>
W 01	E.W1	Knowledge and understanding of pathophysiology, diagnostics and therapy of: endocrine diseases including diseases of hypothalamus, pituitary gland, thyroid, parathyroid, adrenal glands, diseases of ovaries and testes, neuroendocrine tumours, different types of diabetes, hypoglycaemias, metabolic syndrome, multiple endocrine neoplasia, osteoporosis hematologic diseases: bone marrow aplasia and anemia, neutropenia and agranulocytosis, thrombocytopenia, acute leukemia, myeloproliferative syndromes and myelodysplastic-myeloproliferative neoplasms, myelodysplastic syndromes, neoplasms of mature B and T lymphocytes, bleeding disorders, thrombophilia, life threatening conditions in hematology, blood disorders in diseases of other organs, blood donation and transfusion, transplantation of bone marrow cardiovascular diseases and their complications, including coronary heart disease, valvular heart disease, diseases of the endocardium, myocardium and pericardium, heart failure (acute and chronic), pulmonary embolism occupational diseases, water-electrolytes imbalance states, dehydration, hyperhydration, acidosis and alkalosis rheumatoid diseases, diseases of connective tissues, systemic vasculitis, arthritis affecting vertebral column, metabolic diseases of bones	Oral response, test, oral examination	CK, CA



		including osteoporosis, gout and joint degenerative states digestive system disorders and nephrology disorders		
S 01	e.g. A.U1	Skills of taking directed medical history and physical examination of adult patient	Oral response, test, oral examination	CK, CA
<p>** L - lecture; SE - seminar; AC – auditorium classes; MC – major classes (non-clinical); CC – clinical classes; LC – laboratory classes; SCM – specialist classes (magister studies); CSC – classes in simulated conditions; FLC – foreign language course; PCP practical classes with patient; PE – physical education (obligatory); VP – vocational practice; SS – self-study, EL – E-learning .</p>				
<p>Please mark on scale 1-5 how the above effects place your classes in the following categories: communication of knowledge, skills or forming attitudes: Knowledge: 5 Skills: 5</p>				
Student's amount of work (balance of ECTS points)				
Student's workload (class participation, activity, preparation, etc.)			Student Workload (h)	
1. Contact hours:			240	
2. Student's own work (self-study):			235,2	
Total student's workload			475,2	
ECTS points for module/course			16	
Comments				
<u>Department of Endocrinology, Diabetes and Isotope Therapy</u>				
Winter semester- classes				
Practical training 1.	<p>Hyperthyroidisms – differential diagnosis, diseases causing hyperthyroidism, algorithm of management. Orbitopathy, thyroid storm, thyreocardiac syndrome. Radioiodine treatment in thyroid diseases - indications and contraindications.</p> <p>Hypothyroidisms, thyroiditis: differential diagnosis, rudiments of treatment. Ultrasonography of thyroid gland.</p>		Teaching assistants	
Practical training 2.	<p>Thyroid cancer: differential diagnosis and treatment.</p> <p>Diffuse and nodular goiter: diagnostic procedures, management, iodine prophylaxis.</p> <p>Fine needle aspiration biopsy – indications, contraindications, advantages and disadvantages, Bethesda classification of thyroid cytology. Indications for surgical treatment in thyroid diseases.</p>		Teaching assistants	



Practical training 3.	Glucose metabolism disorders. Diabetes mellitus: diagnostic algorithm, insulin secretory pattern in healthy individuals and diabetics. Options for diabetic treatment: principles of insulin therapy, oral hypoglycemic agents. Algorithm of therapy with antidiabetic agents in type 2 diabetes mellitus. Goals of insulin treatment. Outcome measures to assess diabetes management. Diabetic complications: hypoglycaemia, diabetic ketoacidosis, hyperosmolar hyperglycemic state – treatment algorithms.	Teaching assistants
Practical training 4.	Disorders of adrenal glands: differential diagnosis. Treatment options in case of hypercortisolaemia and adrenal gland insufficiency. Carcinoma of adrenal gland – diagnosis and treatment procedures.	Teaching assistants
Summer semester – classes		
Practical training 1.	Disorders of hypothalamic-pituitary unit: acromegaly, hyperprolactinaemia, panhypopituitarism, diabetes insipidus: differential diagnosis, interpretation of hormonal tests. Methods of treatment. Presentation of clinical cases.	Teaching assistants
Practical training 2.	Menstrual irregularities: differential diagnosis (diagnostic algorithms). Methods of treatment. Endocrine diseases and pregnancy: thyroid dysfunction in the pregnant patient – diagnosis and therapy. Gestational diabetes mellitus – diagnosis and treatment. Endocrinology of male reproduction – diagnosis and therapy of hypogonadism. Age-related changes in the male reproductive axis – treatment options.	Teaching assistants
Practical training 3.	Disorders of calcium and phosphate metabolism: primary and secondary hyperparathyroidism – differential diagnosis, therapeutic options – indications for surgery, non-surgical approaches.	Teaching assistants



	Approach to hyper- and hypocalcemia, differential diagnosis.	
Practical training 4.	Hypertension associated with endocrine disorders: diagnostic and therapeutic algorithms. Aldosterone to renin ratio as a tool in the diagnosis of hypertension. Differential diagnosis.	Teaching assistants
Auditorium classes - winter semester		
1.	Introduction to thyroidology. Differential diagnosis and management of thyrotoxic states, hypothyroidism, thyroiditis.	Dr hab. J. Daroszewski
2.	Goiter and thyroid cancer.	Dr K. Zawadzka
3.	Glucose metabolism disorders - epidemiology, signs and symptoms, diagnostic criteria.	Dr hab. J. Daroszewski
4.	Diseases of adrenal glands.	Dr. A. Jawiarczyk-Przybyłowska
<p>Basic literature (list according to importance, no more than 3 items) 1. Harrison's Principles of Internal Medicine. 19th edition. Dan L. Longo et al. McGraw-Hill Medical, 2015.</p>		
<p>Didactic resources requirements (e.g. laboratory, multimedia projector, other...) Multimedia projector</p>		
<p>Preliminary conditions (minimum requirements to be met by the student before starting the module/course) Basic anatomy, physiology and pathophysiology</p>		
<p>Conditions to receive credit for the course (specify the form and conditions of receiving credit for classes included in the module/course, admission terms to final theoretical or practical examination, its form and requirements to be met by the student to pass it and criteria for specific grades) Attendance and oral exam</p> <p>Name and address of module/course teaching unit, contact: telephone and e-mail address Pasteura 4, 50-367 Wrocław, tel.: 71 784 25 45, 71 784 25 46, faks: 71 327 09 57. elzbieta.szubart@umed.wroc.pl</p> <p>Coordinator / Person responsible for module/course, contact: telephone and e-mail address Justyna Kuliczowska-Płaksej, , tel.: 71 784 25 45, 71 784 25 46</p>		



justyna.kuliczowska-plaksej@umed.wroc.pl

Jacek Daroszewski, tel. 71-784 24 46

jacek.daroszewski@umed.wroc.pl

List of persons conducting specific classes: full name, degree/scientific or professional title, discipline, performed profession, form of classes.

Katarzyna Zawadzka MD, Jowita Halupczok-Żyła MD, Jacek Daroszewski MD, PhD, Marek Bolanowski Prof., Aleksandra Jawiarczyk-Przybyłowska MD, Justyna Kuliczowska-Płaksej MD

Department of Clinic of Haematology , Blood Neoplasms, and Bone Marrow Transplantation

Practical classes

Winter semester - Assistants and tutors of the clinic

Class 1. Hematopoietic stem cell transplantation in the blood disorders – indications, purposes, course, types. Early and late complications after bone marrow transplantation.

Class 2. Myeloproliferative syndromes: polycythemia vera, essential thrombocythemia, osteomyelofibrosis, chronic myeloid leukemia, MPD/MPS – symptoms, diagnostics, treatment.

Class 3. Non-Hodgkin lymphomas and Hodgkin lymphoma – symptoms, diagnostics, treatment.

Class 4. Chronic lymphocytic leukemia. Tumor lysis syndrome – symptoms, diagnostics, treatment.

Summer semester - Assistants and tutors of the clinic

Class 1. Plasmocytic dyscrasias – classification, MGUS, presence of monoclonal protein in other diseases. Plasmapheresis – indications, procedure, complications.

Class 2. Platelet and vascular bleeding disorders. Blood transfusions in hematology, post-transfusion complications. Coagulation disorders. Thrombophilia.

Class 3. Bone marrow aplasia and hypoplasia, PRCA, agranulocytosis. Causes of pancytopenia, treatment-related cytopenias – symptoms, diagnostics, treatment.

Class 4. Principles and practice of chemo- and radiotherapy in hematology. Contemporary diagnostic and therapeutic approach in hematology. Psychological aspects in patients with blood neoplasms.

Auditorium classes - winter semester

Winter semester - Assistants and tutors of the clinic

1. Acute leukemias.
2. Chronic myeloid leukemia.
3. Myeloproliferative syndromes.
4. Myelodysplastic syndromes.
5. Multiple myeloma and other gammopathies.
6. Non-Hodgkin lymphomas.
7. Hodgkin lymphoma.
8. Platelet and coagulation bleeding disorders in clinical practice.
9. Acquired and congenital thrombophilia.
10. Anemias.



Basic literature (list according to importance, no more than 3 items)

1. Harrison's Principles of internal medicine. 19th edition. Dan L. Longo et all. McGraw-Hill Medical, 2015.

Additional literature and other materials (no more than 3 items)

1. Hematology, Basic Principles and Practice. 6th edition. Ronald Hoffman et all. Churchill Livingstone, 2013.
2. Hematology in Clinical Practice, 5th Edition. Robert S. Hillman, et all. McGraw-Hill Medical, 2010.
3. Williams Manual of Hematology, 9th Edition. Marshall A. Lichtman. McGraw-Hill Medical, 2016.

Didactic resources requirements (e.g. laboratory, multimedia projector, other...)

Computer, multimedia projector, fantoms.

Preliminary conditions : preliminary test

Preparation for classes prescribed textbook (field activities according to the plan), and knowledge from previous years of study.

Conditions to receive credit for the course (specify the form and conditions of receiving credit for classes included in the module/course, admission terms to final theoretical or practical examination, its form and requirements to be met by the student to pass it and criteria for specific grades)

Attendance and oral exam

Name and address of module/course teaching unit, contact: telephone and e-mail address

Department and Clinic of Haematology, Blood Neoplasms, and Bone Marrow Transplantation
Wrocław, ul. Wybrzeże L. Pasteura 4, tel. 717842576
Head: prof. dr hab. n. med. Kazimierz Kuliczkowski
e-mail: kazimierz.kuliczkowski@umed.wroc.pl

Coordinator / Person responsible for module/course, contact: telephone and e-mail address

Jakub Dębski , jakub.debski@umed.wroc.pl, tel. 717842610

List of persons conducting specific classes: full name, degree/scientific or professional title, discipline, performed profession, form of classes.

Prof. Kazimierz Kuliczkowski, Prof. Olga Haus, Prof. Maria Podolak-Dawidziak, Prof. Lidia Usnarska-Zubkiewicz, Prof. Dariusz Wołowicz, Prof. Tomasz Wróbel, Assoc. Prof. Katarzyna Kapelko-Słowik, Assoc. Prof. Donata Urbaniak-Kujda, Stanisław Potoczek, MD, PhD, Justyna Rybka, MD, PhD, Jakub Dębski, MD, Magdalena Laszkowska, MD, Jacek Kwiatkowski, MD, Mateusz Sawicki, MD, Angela Walasek, MD.



Department and Clinic of Cardiology

Auditorium classes

Noninvasive and invasive diagnostics of exertional and resting chest pain and dyspnea.

Noninvasive and invasive diagnostics and pharmacologic and nonpharmacologic treatment of cardiac arrhythmias.

Practical classes

1. Chronic coronary heart disease - pathophysiology, classification, non-invasive diagnostic procedures, treatment

2. Acute coronary syndromes - pathophysiology, classification, diagnosis, treatment.

3. Supraventricular and ventricular arrhythmias – diagnosis, treatment.

4. Pulmonary embolism.

5. Acute heart failure.

6. Chronic heart failure – pathophysiology, diagnosis, treatment.

7. Diseases of myocardium

Primary and secondary literature

Dennis Kasper, Anthony Fauci, Stephen Hauser, Dan Longo, J. Larry Jameson, Joseph Loscalzo Eds.
Harrison's Principles of Internal Medicine , McGraw-Hill; 19 edition, 2015

The Guidelines of the European Society of Cardiology <http://www.escardio.org/knowledge/guidelines/>

Didactic resources requirements

Multimedia projector

Preliminary conditions

Basic anatomy, physiology and pathophysiology

Conditions to receive credit for the course

Attendance and oral exam

Name and address of module/course teaching unit, contact: telephone and e-mail address

ul. Borowska 213, 50-556 Wrocław

tel.: 71 736 42 00, faks: 71 736 42 09

e-mail: kardiologia@umed.wroc.pl

Coordinator / Person responsible for module/course, contact: telephone and e-mail address

Monika Przewocka-Kosmala, MD, PhD, tel 71 7364200,



monika.przewlocka-kosmala@umed.wroc.pl

List of persons conducting specific classes: full name, degree/scientific or professional title, discipline, performed profession, form of classes.

Prof. Andrzej Mysiak, Prof. Marta Negrusz-Kawecka, Prof. Wojciech Kosmala, Monika Przewłocka-Kosmala (MD, PhD), Wiktor Kuliczkowski (MD, PhD), Marcin Protasiewicz (MD, PhD), Tomasz Grzebieniak (MD, PhD), Konrad Kaaz (MD), Tomasz Bańkowski (MD), Kamila Woźnicka (MD)

Department and Clinic of Internal and Occupational Diseases and Hypertension

Auditorium classes - winter semester

1. The emergencies in internal and occupational diseases.
2. Environmental and demographic threats in XXI century

Practical classes

1. Assessment of the cardiovascular risk. Laboratory tests and diagnostic imaging in hypertension. ABPM - ambulatory blood pressure monitoring and its interpretation. Polysomnography.
2. The assessment of target organ damage. Rules of conduct in specific therapeutic groups of patients with hypertension (metabolic syndrome, diabetes, stroke, pregnancy, old age, chronic kidney disease). Rules for selection of drugs, depending on the profile of the patient – causal treatment, individualization of pharmacotherapy in accordance with the principles of EBM. Hypertensives emergencies. A patient with refractory hypertension - causes, diagnosis and treatment. The concept of pseudo-refractory hypertension, masked hypertension, "white coat hypertension" and "white coat effect". Diagnosis of non-compliance.
3. Stroke. Assessment of the patient's consciousness by the Glasgow Coma Scale. Pulmonary embolism - the principle of diagnosis, qualification for surgical treatment, pharmacological treatment, thrombosis - diagnosis of conditions predisposing to thrombosis, therapeutic procedure. DIC - principles of diagnosis and treatment, haemorrhagic diathesis, including iatrogenic - overdose of anticoagulants, bleeding in a patient treated with anticoagulant
4. Respiratory and metabolic acidosis. Respiratory and metabolic alkalosis. Compensatory mechanisms. The principles of diagnosis and therapy. Dehydration and overhydration. Hyponatremia, hyperemia, hyperkalemia, hypokalemia, hypocalcemia hypercalcemia. Hypophosphatemia
5. COPD exacerbation, exacerbation of asthma, pneumonia. Acute respiratory failure, sepsis – algorithms
6. Decompensated heart failure, diagnostics, risk factors for decompensation, hemodynamic classification, principles of pharmacotherapy; A patient with dyspnoea, a patient with chest pain - algorithms and differential diagnosis
7. Emergencies in diabetes and other endocrine diseases - principles of diagnostic and therapeutic procedures. Fever of unknown origin (FUO). Cachexia. Basics of EBM. TEST.

Primary and secondary literature

1. Dennis Kasper, Anthony Fauci, Stephen Hauser, Dan Longo, J. Larry Jameson, Joseph Loscalzo Eds. Harrison's Principles of Internal Medicine , McGraw-Hill Professional; 19 edition, 2015
2. NM Kaplan, RG Victor MD, Kaplan's Clinical Hypertension, Lippincott Williams & Wilkins, 2014

Didactic resources requirements

Multimedia projector



Preliminary conditions

Basic anatomy, physiology and pathophysiology

Conditions to receive credit for the course

Test

Name and address of module/course teaching unit, contact: telephone and e-mail address

Department and Clinic of Internal, Occupational Diseases, Hypertension and Clinical Oncology
Borowska 213; 50-556 Wrocław tel. 71-7364000 fax 71-7364009

Coordinator / Person responsible for module/course, contact: telephone and e-mail address

Anna Jodkowska, MD, PhD, anna.jodkowska@umed.wroc.pl tel. 71-7364000

List of persons conducting specific classes: full name, degree/scientific or professional title, discipline, performed profession, form of classes.

Adrian Doroszko (MD, PhD), Anna Jodkowska (MD, PhD), Maciej Podgórski (MD), Helena Martynowicz (MD, PhD), Maciej Jakubowski (MD), Katarzyna Beszłej (MD), Marta Jurdziak (MD), Katarzyna Kozuch-Sajdak (MD), Diana Frontkiewicz (MD), Leopold Rehan (MD), Maciej Bładowski (MD), Magdalena Stępniewska (MD), Dominika Bereta (MD), Weronika Korzyńska (MD), Anna Skoczyńska (Prof.)

Department and Clinic of Rheumatology and Internal Medicine

Auditorium classes - winter semester

- Rheumatoid arthritis.
2. Axial and peripheral spondyloarthritis.
3. New criteria in SLE, Sjögren's and APS.
4. Systemic sclerosis

Practical classes

1. Physical examination in rheumatology.
2. Epidemiology, pathogenesis, symptoms, differential diagnosis and therapy in rheumatic diseases.
3. Rehabilitation and modern drug treatment needs and challenges.

Primary and secondary literature

Dennis Kasper, Anthony Fauci, Stephen Hauser, Dan Longo, J. Larry Jameson, Joseph Loscalzo Eds.
Harrison's Principles of Internal Medicine, McGraw-Hill Professional; 19 edition, 2015

Didactic resources requirements (e.g. laboratory, multimedia projector, other...)

Multimedia projector, laptop, flip chart

Preliminary conditions (minimum requirements to be met by the student before starting the module/course)

Student of 6th year of medicine

Conditions to receive credit for the course

Presence: at least 80%

Passing the test: with 60%

Name and address of module/course teaching unit, contact: telephone and e-mail address

Department and Clinic of Rheumatology and Internal Medicine ul. Borowska 213, Wrocław
Borowska 213 Wrocław, 50-556 Wrocław, telephone : 71 734 33 00

Coordinator / Person responsible for module/course, contact: telephone and e-mail address

Prof. Piotr Wiland tel. 71 734 33 00, sekreum@reum.umed.wroc.pl

List of persons conducting specific classes: full name, degree/scientific or professional title, discipline, performed profession, form of classes.

Accos. Prof. Jerzy Świerkot, PhD, Renata Sokolik MD, PhD, Magdalena Szmyrka, MD, PhD, Marta Madej, MD, PhD, Ewa Morgiel, MD, PhD, Paweł Stępniewski, MD, Marta Skoczyńska, MD

Department of Gastroenterology and Hepatology

Classes (winter and summer semester)

1. Symptomatology of gastrointestinal disorders (part 1). Developing skills in taking clinical interview and planning proper diagnostic procedures. Evaluation of alarm features, risks for organic diseases and psychological factors. Clinical evaluation and differential diagnosis of nausea, vomiting, heartburn, dysphagia, chest pain, acute and chronic abdominal pain, changes in the bowel movement pattern of, bloating.
2. Symptomatology of gastrointestinal disorders (part 2). Clinical evaluation and differential diagnosis of bleeding from the upper and lower parts of the gastrointestinal tract. Evaluation of a severity and a source of bleeding – diagnostics and therapeutic algorithms. Malnutrition and its causes. Determining of the severity of malnutrition. Diagnostics and therapeutic algorithms in patients with jaundice, hepatopathia or ascitis.
3. Esophageal disorders – anamnesis and physical examination, adequate selection of additional diagnostic tests, interpretation of the results, planning of treatment and follow-up care.
4. Gastroduodenal disorders – anamnesis and physical examination, adequate selection of additional diagnostic tests, interpretation of the results, planning of treatment and follow-up care.
5. Small intestine and colon diseases except for inflammatory bowel diseases – anamnesis and physical examination, adequate selection of additional diagnostic tests, interpretation of the results, planning of treatment and follow-up care. *Clostridium difficile* infection. Fecal micro biota transplantation.
6. Inflammatory bowel diseases – diagnosis and treatment of ulcerative colitis and Crohn's disease. Evaluation of severity and range of the disease. Complications and indications for surgical treatment. Qualification for biological treatment.
7. Hepato-biliary disorders – anamnesis and physical examination, adequate selection of additional diagnostic tests, interpretation of the results, planning of treatment and follow-up care. Indications and contraindications for liver biopsy. Patient monitoring after liver biopsy – diagnosis and treatment of the complications.



8. Pancreatic disorders – anamnesis and physical examination, adequate selection of additional diagnostic tests, interpretation of the results, planning of treatment and follow-up care. Determining the severity of pancreatitis based on clinical evaluation, results of lab tests and imaging studies. Diagnosis and management of the complications.
9. Functional gastrointestinal disorders. Rome IV criteria. Developing skills in taking clinical interview, asking open questions, and building a patient-doctor relationship. Diagnostics and therapeutic algorithms in functional gastrointestinal disorders .
10. Emergencies in gastroenterology. Gastroenterological manifestations of other systemic diseases, including infectious, endocrine, hematologic, rheumatologic, and vascular diseases. Genetically determined disorders. Premalignant conditions of the digestive tract.
11. Endoscopic unit: Knowledge of indications, contraindications and preparation for endoscopic examinations. Obtaining the patient's informed written consent, also in difficult situations. Contact with a patient before examinations, explanation of complications. Patient's care after the procedure.
12. Endoscopic unit: Identification of changes in endoscopic examinations and the use of classifications and scoring systems for evaluating types and severity of changes.
13. Endoscopic unit: Diagnostic endoscopy of the upper gastrointestinal tract with taking biopsies and staining – aims and clinical implications.
14. Endoscopic unit: Therapeutic endoscopy of the upper gastrointestinal tract – polypectomy, hemostatic techniques (hemoclips, „endoloop”, thermocoagulation methods, injections, tissue glue).
15. Endoscopic unit: Diagnostic endoscopy of the lower gastrointestinal tract with taking biopsies and staining during rectoscopy, sigmoidoscopy and colonoscopy – aims and clinical implications.
16. Endoscopic unit: Therapeutic endoscopy of the lower gastrointestinal tract – polypectomy with diathermic and cold loops, hemostatic techniques.
17. Endoscopic unit: Diagnostic and therapeutic enteroscopy and capsule endoscopy – indications and preparation for the examinations, technique of the procedures and interpretation of the results.
18. Endoscopic unit: Diagnostic and therapeutic endoscopic ultrasonography – indications and preparation for the examinations, technique of the procedures and interpretation of the results.
19. Endoscopic unit: Endoscopic retrograde cholangiopancreatography and endoscopic sphincterotomy – indications and preparation for the examinations, technique of the procedures and interpretation of the results. Complications and their prevention.
20. Endoscopic unit: Other endoscopic therapeutic techniques – dilatation, argon plasma coagulation.
21. Ultrasound exam room: Ultrasound indications (when and in whom?). Ultrasonography in comparison to other imaging techniques. The technique of abdominal usg exam and interpretations of the results.
22. Ultrasound exam room: Frequent anatomical pitfalls, interpretation on the normal results, description and documentation of the exam, performing usg exams.
23. Ultrasound exam room: Diagnostics of the liver, biliary tract and the pancreas, performing usg exams; fine-needle aspiration biopsy.
24. Ultrasound exam room: Diagnostics of the kidney, suprarenal glands, spleen, abdominal lymph nodes and retroperitoneal space, performing usg exams.
25. Ultrasound exam room: Evaluation of the large abdominal vessels, diagnostics of extra-organ tumors, spreading of inflammatory changes, lesions of intestinal wall, evaluation of pelvic cavity organs, performing usg exams.
26. Gastrointestinal motility laboratory: Functional tests (why, in whom, and why?). High resolution esophageal manometry – indications and preparation for the examinations, technique of the procedures and interpretation of the results.
27. Gastrointestinal motility laboratory: esophageal impedance-pH-monitoring, Bilitec – indications and preparation for the examinations, technique of the procedures and interpretation of the results.
28. Gastrointestinal motility laboratory: High resolution anorectal manometry – indications and preparation for the examinations, technique of the procedures and interpretation of the results.
29. Gastrointestinal motility laboratory: Electrogastrography – indications and preparation for the examinations, technique of the procedures and interpretation of the results.

Primary and secondary literature

Avanduc C, Manual of Gastroenterology, Lippincott Williams & Wilkins, 2008

Didactic resources requirements

multimedia projector

Preliminary conditions

Basic knowledge of anatomy and clinical immunology

Name and address of module/course teaching unit, contact: telephone and e-mail address

Dept. of Gastroenterology and Hepatology
Borowska 213 Wrocław, 50-556 Wrocław, tel. 71 733 21 20
gastro@gastro.am.wroc.pl

Classes:

dr hab. Agata Mulak
dr hab. Dorota Waško-Czopnik
dr n. med. Radosław Kempniński
dr n. med. Małgorzata Manelska
dr n. med. Katarzyna Neubauer
dr n. med. Adam Smereka
dr n. med. Robert Dudkowiak
dr n. med. Barbara Woźniak-Stolarska

Department of Nephrology and Transplantation Medicine

Classes

1. Specificity of pharmacotherapy in nephrology - adjustment of drugs' doses to renal function, the most important drug interactions. Nephrotoxic actions of drugs.
2. Treatment of hypertension in renal diseases - individual groups of medicines, indications, contraindications, side effects.
3. Treatment of anemia in people with kidney disease - erythropoiesis stimulating factor, iron preparations, vitamins, the phenomenon of resistance to erythropoietin. Antithrombotic therapy in renal disease - in nephrotic syndromes, renal dialysis treatment, after kidney transplantation surgery, perioperative.
4. Treatment of disorders of calcium-phosphate management in chronic renal failure. Pharmacology of kidney stones.
5. Immunosuppressive drugs used in nephrology - antiproliferative drugs that inhibit cytokine production, biological agents. The most common immunosuppressive regimens used in kidney disease: glomerulonephritis, autoimmune diseases, kidney transplant. Use of adrenocortical hormone preparations in renal diseases - indications, complications, available formulations
6. Basic conditions requiring renal replacement therapy - qualification of patients based on clinical symptoms and laboratory tests. Choice of dialysis, for and against hemodialysis and peritoneal dialysis.
7. Vascular access in hemodialysis - principles of chronic care.



8. "Artificial kidney" - hemodialysis apparatus, construction and operating principles, chronic hemodialysis and assessment of treatment effectiveness.

9. Complications of dialysis.

Plasmapheresis - indications, methods of administration, regimens, complications.

11. Peritoneal dialysis-implantation of peritoneal dialysis catheter, fluid types, special problems of dialysed peritoneal dialysis patients

12. Continuous techniques - haemofiltration, hemodiafiltration. Treatment of acute kidney injury.

Primary and secondary literature

1. Harrison's Principles of Internal Medicine", Publisher: McGraw-Hill Medical; 18th Edition 2011.
2. Gerd Herold „Internal Medicine” Publisher: lulu. com; First English Edition 2011.
3. Macleod's Clinical Examination. Graham Douglas, Fiona Nicol, Colin Robertson. Edition 13th, 2013.

Didactic resources requirements

multimedia projector

Preliminary conditions

Basic knowledge of anatomy and clinical immunology

Conditions to receive credit for the course

Case presentation, Attendance

Name and address of module/course teaching unit, contact: telephone and e-mail address

Dept. of Nephrology and Transplantation Medicine
Borowska 213, 50-556 Wrocław, tel. 71 733 25 00
klinef@am.centrum.pl

Classes:

prof. dr hab. Marian Klinger
prof. dr hab. Magdalena Krajewska
dr hab. Oktawia Mazanowska
dr hab. Mariusz Kusztal
dr hab. Mirosław Banasik
dr n. med. Dorota Kamińska
dr n. med. Maria Magott-Procelewska
dr n. med. Sławomir Zmonarski
dr n. med. Józef Penar
dr n. med. Krzysztof Letachowicz
dr n. med. Tomasz Gołębiowski
dr n. med. Maciej Szymczak
dr n. med. Katarzyna Jakuszko



Grade:	Criteria (only for courses/modules ending with an examination)
Very Good (5.0)	96-100%
Good Plus (4.5)	90-95%
Good (4.0)	80-89%
Satisfactory Plus (3.5)	70-79%
Satisfactory (3.0)	60-69%

Date of Syllabus development

4.09.2017r.

Syllabus developed by

Signature of Head of teaching unit

Signature of Faculty Dean

Wrocław, 09.09.2017r.
FACULTY OF MEDICINE
VICE-DEAN FOR STUDIES IN ENGLISH

Prof. Andrzej Hendrich, PhD