



Internal Medicine – Nephrology

1. IMPRINT	
Academic Year	2024/2025
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline	Medical Science
Study Profile	General academic
Level of studies	<i>uniform MSc</i>
Form of studies	Full time studies
Type of module / course	<i>Obligatory</i>
Form of verification of learning outcomes	<i>Exam</i>
Educational Unit / Educational Units	Department of Transplantology, Immunology, Nephrology and Internal Diseases Address: 59 Nowogrodzka St, 02-006 Warsaw Phone: 48 22 502 12 32, fax: 48 22 502 21 26; e-mail:
Head of Educational Unit / Heads of Educational Units	Professor Magdalena Durlik
Course coordinator	Assoc. Professor Joanna Pazik MD PhD
Person responsible for syllabus	Assoc. Professor Joanna Pazik MD PhD
Teachers	Magdalena Durlik, Professor, MD, PhD Teresa Bączkowska, Assoc. Professor MD, PhD Joanna Pazik, Assoc. Professor MD, PhD Dominika Dęborska-Materkowska Assoc. Professor MD, PhD Ewa Nowacka-Cieciura MD, PhD Jolanta Gozdowska Assoc. Professor MD, PhD Olga Tronina, Assoc. Professor MD, PhD

	Agnieszka Furmańczyk-Zawiska, MD, PhD Robert Świder MD
--	---

2. BASIC INFORMATION				
Year and semester of studies	VI, semester 11, 12		Number of ECTS credits	2.00
FORMS OF CLASSES		Number of hours	ECTS credits calculation	
Contacting hours with academic teacher				
Lecture (L)				
Seminar (S)		5	0.4	
Classes (C)		25	1.6	
e-learning (e-L)				
Practical classes (PC)				
Work placement (WP)				
Unassisted student's work				
Preparation for classes and completions				

3. COURSE OBJECTIVES	
O1	After completing the course students should know causes, clinical presentation, differential diagnostics and treatment of common diseases of kidneys and urinary tract.
O2	Students should know about risk factors, presentation and clinical course of kidneys' involvement in systemic diseases.
O3	Students should know indications, contraindications and technique of kidney biopsy.
O4	Students should know indications for renal replacement treatment (RRT). Basic methods of RRT, advantages and limitations.

4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING

Code and number of the effect of learning in accordance with standards of learning	Effects in the field of: <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>
---	---

Knowledge – Graduate* knows and understands:

G.K1	B.W24 Parameters determining kidney function
G.K2	E.W7. Causes, symptoms, principles of diagnosis and therapeutic management of common internal diseases in adults and their complications with special regards to: 5) diseases of kidneys and urinary tract, acute and chronic kidney failure (in contemporary medical terminology Acute Kidney Injury and Chronic Kidney Disease) glomerulonephritides, diseases of kidney interstitium and of urine collecting system, renal cysts, kidney stone disease, urinary tract infections, kidney and urine collecting system tumors. 9) water-electrolyte and acid-base disorders, states of dehydration and overhydration, electrolyte imbalance, acidosis and alkalosis.
G.K3	C.W38 Basic principles of pharmacotherapy (with particular emphasis on kidney diseases) C.U17 Use of Pharmaceutical information systems and medicinal products databases

Skills– Graduate* is able to:

G.S1	E.U1. Conduct medical interview with an adult patient; E.U3. Conduct a complete and targeted physical examination of an adult patient; E.U7. Assess the general condition, state of consciousness and awareness of the patient; E.U14 Recognize life-threatening health conditions
G.S2	E.U16 Plan diagnostic, therapeutic and prophylactic procedures (with special focus on nephrological diseases); E.U32 Plan specialist consultations E.U20 Qualify the patient for home and hospital treatment
G.S3	E.U17 Analyze the possible adverse side effects of individual drugs and drugs interactions
G.S4	D.U15 Respect patients' rights;
G.S5	E.U38 Keep the patient's medical records

* In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate”, not student is mentioned.

5. ADDITIONAL EFFECTS OF LEARNING *(non-compulsory)*

Number of effect of learning	Effects in the fields of:
-------------------------------------	----------------------------------

Knowledge – Graduate knows and understands:

K1	D.W6 The importance of verbal and non-verbal communication in the process of communicating with the patient and the concept of trust in the interaction with the patient
K2	

Skills– Graduate is able to:

S1	E.U29 Perform basic medical procedures including: Body temperature measurement (superficial and deep), pulse measurement, non-invasive pressure measurement
S2	

Social Competencies – Graduate is ready for:

SC1	
SC2	

6. CLASSES		
Form of class	Class contents	Effects of Learning
Seminars	S1. Primary glomerulonephritis – diagnostics, clinical course and treatment S2. Secondary glomerulonephritis – diagnostics, clinical course and treatment (ANCA positive vasculitides, anti-GBM nephritis, lupus nephritis, cryoglobulinemic glomerulonephritis) S3. Renal replacement therapy. S4. Tubulointerstitial kidney diseases S5. Chronic Kidney Disease	B.W24, EW1, E.W7 E.W7 B.W21, E.W7 E.W7, D.U15 D.U15 E.W7, E.U17
Clinical classes	C1 Patient with proteinuria and hypertension C2 Patient with serum creatinine 10 mg/dl, eGFR 8 ml/min, without the history of renal diseases C3 Patient with acute kidney injury and haemoptysis C4 Patient with anemia and back pain, eGFR 50 ml/min. C5. Diagnostic biopsy of a kidney C6 – Patient who finished treatment with cyclophosphamide 3 weeks ago due to rapidly progressive glomerulonephritis, presenting with fever C7 Patient with fever, haematuria, positive Goldflam's/ Murphy's sign, CRP 100 mg/l C8 Passive participation in kidney biopsy C9. Qualification and preparation for RRT. C10. Chronic kidney disease and end-of-life care. C11-C25. Individual case studies	E.U1, E.U3, E.U7, E.U12, E.U20 E.U16 E.U16 E.U1, E.U3, E.U7, E.U14, E.U17, E.U20

7. LITERATURE
Obligatory
Harrison's Principles of Internal Medicine, 21e, part 9 Disorders of the Kidney and Urinary Tract

Supplementary

S. F. Gilbert & D. E. Weiner & National Kidney Foundation National Kidney Foundation: Primer on Kidney Diseases, 8th Edition, 2022

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
E.U1, E.U3, E.U7 E.U12, E.U14 E.U16, E.U17 E.U20	Continuous assessment during the course of the classes, presence and active participation in the clinical rounds. Based on sick leave one day absenteeism is allowed, the remaining ones must be worked off with another group	
B.W21, B.W24, EW1, E.W7 D.U15 C.U17, E.U17	Fifteen questions MCQ test	9 points - 2.0 (failed) 10 points - 3.0 (satisfactory) 11 points - 3.5 (rather good) 12 points - 4.0 (good) 13 points - 4.5 (more than good) 14-15 points - 5.0 (very good)

9. ADDITIONAL INFORMATION

1. Realization of the program will be based on seminars presenting the current state of knowledge in specific subject and practical classes in clinical wards and out-patients clinics
2. Classes start at 8.00 AM.
3. Students are expected to have their own lab coat, stethoscope, student's ID, shoes.
4. The student participate in classes (seminars and practice) only with the group. Possible group change is exceptional, justified by student's personal situation and requires individual approval..
5. All student information is provided on an ongoing basis on the Clinic's website
www.klinikamedycynytransplantacyjnej.wum.edu.pl
6. The student is obliged to follow the Medical University of Warsaw Regulations (available on the University's website).
7. Address: Department of Transplantology, Immunology, Nephrology and Internal Diseases, 59 Nowogrodzka St, 02-006 Warsaw, Pavilion 1A.
8. Contact email address: joanna.pazik@wum.edu.pl

Medical University of Warsaw has property rights, including copyright, to the syllabus. The syllabus may be used for educational purposes at the MUW only. Using of the syllabus for other purposes requires consent of the MUW.

ATTENTION

The final 10 minutes of the last class of the block/semester/year should be allotted for students to fill out the Survey of Evaluation of
Classes and Academic Teachers