



Pomeranian Medical University in Szczecin

SYLLABUS of the MODULE (SUBJECT)

General Information

Code		Title	<i>Internal Diseases (Nephrology)</i>
Module type			<i>Obligatory</i>
Faculty			<i>Faculty of Medicine</i>
Field of study			<i>medicine</i>
Major			<i>Not applicable</i>
Level of study			<i>II level/ long-cycle (S2J)</i>
Mode of study			<i>intramural</i>
Year of study			<i>III</i>
Semester			<i>V, VI</i>
ECTS points			<i>6</i>
Types of training			<i>Lectures – 15 hours, Practical – 115 hours, In total – 130 hours</i>
Tutor responsible for the module			<i>Prof. dr hab. n. med. Kazimierz Ciechanowski kazcie@pum.edu.pl</i>
Tutors conducting the subject			<i>Prof. dr hab. med. Kazimierz Ciechanowski Prof. dr hab. n. med. Leszek Domański Prof. dr hab. n. med. Jacek Różański Dr hab. n. med. Grażyna Dutkiewicz Dr hab. n. med. Edyta Golembiewska Dr hab. n. med. Karolina Kędzierska Dr hab. n. med. Joanna Kabat- Koperska Dr hab. n. med. Ewa Kwiatkowska Dr n. med. Maciej Domański Dr n. med. Krzysztof Pabisiak Dr n. med. Joanna Stępniewska Dr n. med. Magda Wiśniewska Dr n. med. Małgorzata Marchelek-Myśliwiec Lek Michał Małecki Lek Marcin Lisak Lek Jarosław Przybyciński</i>
WWW			<i>www.pum.edu.pl</i>
Language			<i>English</i>

Detailed information

Module objectives		<ol style="list-style-type: none"> 1. Aim of the course is to remind and complete the knowledge of the introduction to clinical medicine 2. Students are taught the accumulation of clinical thinking skills for diagnostic procedures, the conduction of a proper differential diagnosis the use of appropriate treatment presented in the curriculum of IIIrd year of the Faculty of Medicine 3. Students are taught the manner of implementing prophylactic measures for diseases of the adults 4. Students gain the proper clinical attitude and skills helpful to deal with a sick adult
Prerequisite /essential requirements	Knowledge	<i>The knowledge accumulated during the first two years of study at the Faculty of Medicine, in particular anatomy, embryology, histology, biochemistry, physiology, introduction to clinical medicine, pathology and pharmacology.</i>
	Skills	<i>Critical reading of literature, including web resources. Good preparation of library services</i>
	Competences	<i>The habit of self-education, ability to work in team, interpersonal communication skills, the ability of responsible usage of emotional intelligence</i>

Description of the learning outcomes for the subject /module			
Number of learning outcome	Student, who has passed the (subject) Knows /is able to /can:	SYMBOL (referring the standards) EKK	Method of verification of learning outcomes
KL2JPW01	knows environmental and epidemiological conditions of most frequent diseases	K_E.W1	Continuous assessment during seminars and classes;
KL2JPW02	<p>knows and recognizes causes, symptoms, diagnoses and therapeutic procedures with regard to the most frequent internal diseases in adults and related complications:</p> <p>a) circulatory system diseases incl.: ischemic heart disease, organic heart diseases, endocardium, myocardium and pericardium diseases, heart failure (acute and chronic), angiopathy, primary and secondary hypertension and pulmonary hypertension,</p> <p>b) respiratory tract diseases incl.: airway diseases, chronic obstructive pulmonary diseases, bronchial asthma, bronchiectasis, mucoviscidosis, respiratory tract infection, interstitial disease of lungs, pleura and mediastinum, obstructive and sleep apnea, acute and chronic respiratory failure, respiratory system</p>	K_E.W7	Continuous assessment during seminars and classes;

	<p>neoplasm</p> <p>c) alimentary system diseases, incl.: stomatopathy, esophagus diseases, gastrosis, diseases of duodenum, enteropathy, diseases of hepatopathy, pancearopathy, cholepathy, cholecystopathy</p> <p>d) endocrine system diseases, incl.: disorders of hypothalamus, hypophysis, thyroid, parathyroid, adrenal cortex, adrenal medulla, ovarioopathy, orchiopathy, neuroendocrine tumour disease, endocrine polyglandular syndrome, different types of diabetes and metabolic syndrome, hypoglycemia, obesity and dyslipidemia</p> <p>e) nephropathy and diseases of urinary tract incl. : acute and chronic renal failure, diseases of renal glomerules and interstitial diseases of kidneys, renal cyst, nephrolithiasis, urinary tract infections, urinary tract neoplasm, in particular bladder cancer and renal cancer</p> <p>f) diseases of hematopoietic system, incl.: panmyelophthisis, anemia, granulocytopenia and granulocytosis, trombocytopenia, acute leukemia, myeloproliferative and myelodysplastic-myeloproliferative diseases, myelodysplasia syndrome, B and T cell lymphoma, hemorrhagic diathesis, thrombophilia, life-threatening states in hematology, dyshematopoiesis in the failure of other organs</p> <p>g) rheumatic diseases, incl.: systemic connective tissue disease, systemic vasculitis arthritis of the spine, metabolic diseases of bones, in particular osteoporosis and arthrosis, uratic gout</p> <p>h) allergic diseases, incl.: anaphylaxis and anaphylactic shock, angioneurotic edema</p> <p>i) water-electrolyte and base-acid disorders: dehydration, overhydration, electrolytic equilibrium disorder, acidosis and alkalosis</p>		
KL2JPW03	knows and understands the course and symptoms of senescence as well as	K_E.W8	Continuous assessment during seminars and

	complex geriatric evaluation and interdisciplinary care with regard to elderly people		classes;
KL2JPU01	takes history interview of adult patient	K_E.U1	verifying of practical skills
KL2JPU02	carries out complete and guided physical examination of adult patient	K_E.U3	verifying of practical skills
KL2JPU03	carries out preliminary examination of hearing and field of vision and otoscopic examination	K_E.U6	verifying of practical skills
KL2JPU04	evaluates general state, state of patient's consciousness and awareness	K_E.U7	verifying of practical skills
KL2JPU05	evaluates sexual maturation status	K_E.U10	verifying of practical skills
KL2JPU06	carries out balance examination	K_E.U11	verifying of practical skills
KL2JPU07	evaluates and describes somatic and mental state of patients	K_E.U13	verifying of practical skills
KL2JPU08	recognizes states representing direct threat to life	K_E.U14	verifying of practical skills
KL2JPU09	<p>performs basic procedures and operations, incl.:</p> <ul style="list-style-type: none"> a) body temperature measurement, sphygmometry, blood pressure measurement b) monitoring life parameters using of cardiac monitor, pulse oximetry c) spirometry, oxygen therapy, forced and replacement ventilation d) introduction of mouth-throat tube e) intravenous, intramuscular and subcutaneous injections, cannulation of peripheral veins, drawing peripheral venous blood, sampling urine culture, drawing arterial blood, drawing arterialized capillary blood f) nose, throat and skin swabs, pleural cavity puncture g) urinary bladder catheterization in women and men, passage of gastric tube into stomach, gastric lavage, enema h) standard resting electrocardiogram c/w interpretation, electrical cardioversion and defibrillation i) simple strip tests and glucose concentration measurement 	K_E.U29	verifying of practical skills
KL2JPU10	<p>assists with performing and interprets the result of the following procedures and operations:</p> <ul style="list-style-type: none"> a) transfusion of blood and blood-derivatives b) pleural cavity drainage c) heart sac puncture d) peritoneal cavity puncture 	K_E.U30	verifying of practical skills

	e) lumbar puncture f) thin-needle biopsy g) epidermal tests h) intradermal and scarification tests		
KL2JPU11	keeps medical documentation	K_E.U38	verifying of practical skills

Matrix presenting the learning outcomes of the subject/module in relation to the form of classes

Number of learning outcome	Student, who has passed the (subject) Knows /is able to /can:	Types of training							
		Lecture	Seminar	Laboratory classes	Project work	Clinical classes	Classes	Practical classes	Other
K_E.W1	knows environmental and epidemiological conditions of most frequent diseases	X				X			
K_E.W7	knows and recognizes causes, symptoms, diagnoses and therapeutic procedures with regard to the most frequent internal diseases in adults and related complications: a) circulatory system diseases incl.: ischemic heart disease, organic heart diseases, endocardium, myocardium and pericardium diseases, heart failure (acute and chronic), angiopathy, primary and secondary hypertension and pulmonary hypertension, b) respiratory tract diseases incl.: airway diseases, chronic obstructive pulmonary diseases, bronchial asthma, bronchiectasis, mucoviscidosis, respiratory tract infection, interstitial disease of lungs, pleura and mediastinum, obstructive and sleep apnea, acute and chronic respiratory failure, respiratory system neoplasm c) alimentary system diseases, incl.: stomatopathy, esophagus diseases, gastrosis, diseases of duodenum, enteropathy, diseases of hepatopathy, pancearopathy, choleopathy, cholecystopathy d) endocrine system diseases, incl.: disorders of hypothalamus, hypophysis, thyroid, parathyroid, adrenal	X				X			

	<p>cortex, adrenal medulla, ovariopathy, orchopathy, neuroendocrine tumour disease, endocrine polyglandular syndrome, different types of diabetes and metabolic syndrome, hypoglycemia, obesity and dyslipidemia</p> <p>e) nephropathy and diseases of urinary tract incl. : acute and chronic renal failure, diseases of renal glomerules and interstitial diseases of kidneys, renal cyst, nephrolithiasis, urinary tract infections, urinary tract neoplasm, in particular bladder cancer and renal cancer</p> <p>f) diseases of hematopoietic system, incl.: panmyelophthisis, anemia, granulocytopenia and granulocytosis, trombocytopenia, acute leukemia, myeloproliferative and myelodysplastic-myeloproliferative diseases, myelodysplasia syndrome, B and T cell lymphoma, hemorrhagic diathesis, thrombophilia, life-threatening states in hematology, dyshematopoiesis in the failure of other organs</p> <p>g) rheumatic diseases, incl.: systemic connective tissue disease, systemic vasculitis arthritis of the spine, metabolic diseases of bones, in particular osteoporosis and arthrosis, uratic gout</p> <p>h) allergic diseases, incl.: anaphylaxis and anaphylactic shock, angioneurotic edema</p> <p>i) water-electrolyte and base-acid disorders: dehydration, overhydration, electrolytic equilibrium disorder, acidosis and alkalosis</p>								
K_E.W8	knows and understands the course and symptoms of senescence as well as complex geriatric evaluation and interdisciplinary care with regard to elderly people	X				X			
K_E.U1	takes history interview of adult patient	X				X			
K_E.U3	carries out complete and guided physical examination of adult patient	X				X			

K_E.U6	carries out preliminary examination of hearing and field of vision and otoscopic examination	X				X			
K_E.U7	evaluates general state, state of patient's consciousness and awareness	X				X			
K_E.U10	evaluates sexual maturation status	X				X			
K_E.U11	carries out balance examination	X				X			
K_E.U13	evaluates and describes somatic and mental state of patients	X				X			
K_E.U14	recognizes states representing direct threat to life	X				X			
K_E.U29	<p>performs basic procedures and operations, incl.:</p> <p>a) body temperature measurement, sphygmometry, blood pressure measurement</p> <p>b) monitoring life parameters using of cardiac monitor, pulse oximetry</p> <p>c) spirometry, oxygen therapy, forced and replacement ventilation</p> <p>d) introduction of mouth-throat tube</p> <p>e) intravenous, intramuscular and subcutaneous injections, cannulation of peripheral veins, drawing peripheral venous blood, sampling urine culture, drawing arterial blood, drawing arterialized capillary blood</p> <p>f) nose, throat and skin swabs, pleural cavity puncture</p> <p>g) urinary bladder catheterization in women and men, passage of gastric tube into stomach, gastric lavage, enema</p> <p>h) standard resting electrocardiogram c/w interpretation, electrical cardioversion and defibrillation</p> <p>i) simple strip tests and glucose concentration measurement</p>	X				X			
K_E.U30	<p>assists with performing and interprets the result of the following procedures and operations:</p> <p>a) transfusion of blood and blood-derivatives</p> <p>b) pleural cavity drainage</p> <p>c) heart sac puncture</p> <p>d) peritoneal cavity puncture</p> <p>e) lumbar puncture</p> <p>f) thin-needle biopsy</p>	X				X			

	g) epidermal tests h) intradermal and scarification tests							
K_E.U38	keeps medical documentation	X				X		

Module (subject) contents		
Symbol of teaching programme	Content of teaching programme	References to learning outcomes
TK_01	Introduction to clinical medicine. History taking - general guidelines.	K_E.W7, K_E.U1, K_E.U13, K_E.U15
TK_02	General view at the patient - part 1.	K_C.W28, K_F.U21, K_F.U25, K_B.W19, K_E.U7
TK_03	General examination - part 2.	K_C.W28, K_E.U7, K_E.U21
TK_04	Examination of the head.	K_E.U1, K_E.U6, , K_F.U26
TK_05	Examination of the neck. Lymph nodes.	K_E.U1, K_E.U4, K_E.U14, K_E.W1
TK_06	The cardiovascular system - part 1.	K_E.U1, K_E.U4, K_E.U14
TK_07	The cardiovascular system - part 2.	K_E.U1, K_E.U4, K_E.U14
TK_08	The cardiovascular system - part 3.	K_E.U1, K_E.U4, K_E.U14
TK_09	The respiratory system - part 1. Inspection, Palpation, Percussion.	K_E.U1, K_E.U4, K_E.U14
TK_10	The respiratory system - part 2. Auscultation	K_E.U1, K_E.U4, K_E.U14
TK_11	The gastrointestinal tract-part 1.	K_E.U1, K_E.U4, K_E.U14
TK_12	The gastrointestinal tract - part 2.	K_E.U1, K_E.U4, K_E.U14
TK_13	The urinary tract	K_E.U1, K_E.U4, K_E.U14
TK_14	Retake. The muscles and skeletal system.	K_E.U1, K_E.U4, K_E.U14
TK_15	Summary of the course	K_G.U2, K_G.U6, K_K11, K_K14
TK_16	Diseases of the respiratory system. Part I Acute bronchitis. Chronic obstructive pulmonary disease. Bronchial asthma.	K_E.W7, K_E.U10, K_E.U11, K_E.U29, K_E.U39
TK_17	Diseases of the respiratory system. Part II Pneumonia. Bronchial cancer.	K_E.W7, K_E.U10, K_E.U11, K_E.U29, K_E.U39
TK_18	Diseases of the respiratory system. Part III Diseases of the pleura. Respiratory failure.	K_E.W7, K_E.U10, K_E.U11, K_E.U29, K_E.U39
TK_19	Diseases of the cardiovascular system. ECG. Part I Infective endocarditis.	K_E.W7, K_E.U10, K_E.U11, K_E.U29, K_E.U39
TK_20	Diseases of the cardiovascular system. ECG. Part II Valvular diseases	K_E.W7, K_E.U10, K_E.U11, K_E.U29, K_E.U39
TK_21	Diseases of the cardiovascular system. ECG. Part III Ischemic heart disease.	K_E.W7, K_E.U29, K_E.U39
TK_22	Diseases of the cardiovascular system. ECG. Part IV Arterial hypertension.	K_E.W7, K_E.U10, K_E.U11, K_E.U29, K_E.U39
TK_23	Diseases of the cardiovascular system. ECG. Part V Acute and chronic cardiac failure.	K_E.W7, K_E.U10, K_E.U11, K_E.U29, K_E.U39
TK_24	Diseases of the gastrointestinal system. Part I Oesophagitis. Gastritis. Peptic ulcer disease.	K_E.W7, K_E.U10, K_E.U11, K_E.U29, K_E.U39
TK_25	Diseases of the gastrointestinal system. Part II Liver failure. Cirrhosis of the liver. Biliary tract diseases	K_E.W7, K_E.U10, K_E.U11, K_E.U29, K_E.U39
TK_26	Diseases of the gastrointestinal system. Part III The pancreas – acute and chronic pancreatitis. Tumors.	K_E.W7, K_E.U10, K_E.U11, K_E.U29, K_E.U39
TK_27	The urinary system. Glomerulonephritis. Kidney stones. Acute and chronic renal failure.	K_E.W7, K_E.U10, K_E.U11, K_E.U29, K_E.U39
References and educational resources		
Schwartz Textbook of Physical Diagnosis – History and Examination		

Bates Guide to Physical Examination and History			
Thaller M. The Only ECG Book You'll Ever Need			
Student's workload (balance sheet of ECTS points)			
Form of student's activity (in-class participation; activeness, produce a report, etc.)	Workload [h]		
	Tutor	Student	Average
Activities that require direct participation of tutors		130	
Preparation to the classes		15	
Reading of the indicated/specified literature		50	
Report writing/project making		5	
Time spent to prepare for the exam		10	
Other			
Student's workload in total		210	
ECTS points for the subject		6	
Remarks at the end			

Methods of assessment, for example:

E – exam- problem resolving
S – verifying of practical skills
R – report
D – discussion
P – presentation
Others-