



POMORSKI UNIWERSYTET MEDYCZNY
W SZCZECINIE
KLINIKA HEMATOLOGII
I TRANSPLANTOLOGII
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Załącznik
do Zarządzenia Nr 4/2020

Pomeranian Medical University in Szczecin

SYLLABUS of the MODULE (SUBJECT) General Information

Module title	<i>Internal diseases- hematology</i>
Module type	<i>Obligatory</i>
Faculty	<i>Faculty of Medicine and Dentistry</i>
Field of study	<i>Medicine</i>
Major	<i>Not applicable</i>
Level of study	<i>long-cycle (S2J)</i>
Mode of study	<i>Intramural</i>
Year of studies, semester	<i>Year V, block system</i>
ECTS credits (incl. semester breakdown)	<i>2</i>
Type/s of training	<i>V-th year: lectures (5h), seminars (7h) and practical classes (20h)</i>
Form of assessment	<i>X graded assessment: *</i> <input type="checkbox"/> <i>descriptive</i> <i>X test</i> <input type="checkbox"/> <i>practical</i> <input type="checkbox"/> <i>oral</i> <input type="checkbox"/> <i>non-graded assessment *</i> <i>- final examination: *</i> <input type="checkbox"/> <i>Descriptive</i> <input type="checkbox"/> <i>test</i> <input type="checkbox"/> <i>practical</i> <input type="checkbox"/> <i>Oral</i>
Head of the Department/ Clinic, Unit	<i>Prof. Barbara Zdziarska, PhD, MD</i>
Tutor responsible for the module	<i>Aleksandra Łanocha PhD, MD; e-mail: aleksandra.lanocha@pum.edu.pl</i>
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Language	<i>English</i>

*replace with X where applicable

Detailed information

Module objectives			
Prerequisite /essential Requirements	Knowledge	1. Knowledge of histology and physiology of blood and bone marrow 2. Knowledge of pathophysiology and pathology 3. Knowledge of pharmacology 4. Basics of human genetics 5. Basic of diagnostic methods	
	Skills	1. takes history interview of adult patient 2. carries out complete and guided physical examination of adult patient 3. plans diagnostics procedures	
	Competences	1. Demonstrates the awareness for self-education	
Description of the learning outcomes for the subject /module			
No. of learning outcome	Student, who has passed the (subject) knows /is able to /can:	SYMBOL (referring the standards) ZEK	Method of verification of learning outcomes *
W01	knows environmental and epidemiological conditions of most frequent diseases	K_E.W1	
W02	<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 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, orchioopathy, 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,</p>	K_E.W7	Single-choice final test (FT) 20 questions, Regular attendance, FT at least 60% of correct answers on test

	thrombophilia, life-threatening states in hematology, dyshematopoiesis in the failure of other organs 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 h) allergic diseases, incl.: anaphylaxis and anaphylactic shock, angioneurotic edema i) water-electrolyte and base-acid disorders: dehydration, overhydration, electrolytic equilibrium disorder, acidosis and alkalosis			
W03	knows environmental and epidemiological conditions for most frequent human neoplasms	K_E.W23	Single-choice final test (FT) 20 questions, Regular attendance, FT at least 60% of correct answers on test	
W04	knows bases of early detection of neoplasms and rules of oncological screening	K_E.W24		
W05	knows potential of modern neoplasm therapy (incl. multimodal therapy), perspectives for gene and cellular therapy and their undesirable consequences	K_E.W25		
W06	knows the rules of combined therapy in oncology, algorithms of diagnosis and treatment procedures with regard to most frequent human neoplasms	K_E.W26		
W07	knows theoretical and practical bases of laboratory diagnostics	K_E.W38		
U01	takes history interview of adult patient	K_E.U1		
U02	carries out complete and guided physical examination of adult patient	K_E.U3		
U03	carries out differentiation diagnostics of most frequent diseases in adults and children	K_E.U12		
U04	plans diagnostics, therapeutic and preventive procedures	K_E.U16		
U05	suggests individualization of applicable therapeutic guidelines and other treatment methods because of ineffectiveness or contra-indications with regard to standard treatment	K_E.U18		
U06	assists with performing and interprets the result of the following procedures and operations: a) transfusion of blood and blood-derivatives b) pleural cavity drainage c) heart sac puncture d) peritoneal cavity puncture e) lumbar puncture f) thin-needle biopsy g) epidermal tests h) intradermal and scarification tests	K_E.U30		
K01	Demonstrates the awareness for self-education, understands the need for continuing professional education, can inspire and organize learning processes in others	K_K03		Single-choice final test (FT) 20 questions, Regular attendance, FT at least 60% of correct answers on test
K02	is aware of patients' rights	K_K11		
K03	seeks to maintain the standing of the medical profession	K_K13		
K04	maintains professional confidentiality	K_K14		
K05	is aware of his/her own limitations and knows when to refer to experts	K_K17		
K06	respects patients/customers/social groups and makes decisions in their best interest	K_K20		

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

No.	SYMBOL (referring the standards) ZEK	Type/s of training							
		Lecture	Seminar	Practical classes	Clinical classes	Other...
W01	K E.W1	X	X						
W02	K E.W7	X	X						
W03	K E.W23	X	X						
W04	K E.W24	X	X						
W05	K E.W25	X	X						
W06	K E.W26	X	X						
W07	K E.W38	X	X						
U01	K E.U1				X				
U02	K E.U3				X				
U03	K E.U12				X				
U04	K E.U16				X				
U05	K E.U18				X				
U06	K E.U30				X				
K01	K K3				X				
K02	K K11				X				
K03	K K13				X				
K04	K K14				X				
K05	K K17				X				
K06	K K20				X				

Module (subject) contents no.	Description of teaching programme	No. of hours	References to learning outcomes
V-th year			
	Lectures:		
TK01	Advances in diagnosis and treatment of blood diseases	1h	W02, W07
TK02	How to optimally treat and diagnose the patient with anemia?	1h	W01, W02, W07
TK03	How to optimally treat and diagnose the patient with of hemostasis disorders?	1h	W01, W02, W07
TK04	When you suspect neoplastic hematologic disorders? What is next?	1h	W01, W02, W03, W04, W05, W06, W07
TK05	Emergencies in hematology	1h	W02, W07
	Seminars:		
TK01	Iron deficiency anemia, vitamin B12 anemia, hemolytic anemias and anemia of chronic diseases- case reports	1h	W01, W02, W07
TK02	Disorders of platelets and hemostasis- disorders of coagulation proteins (hemophilia, DIC)- case reports	1h	W01, W02, W07
TK03	Disorders of platelets and hemostasis- thrombocytopenia- case reports	1h	W01, W02, W07

TK04	Myeloproliferative neoplasms (polycythemia vera, chronic myelogenous leukemia, Essential thrombocythemia, primary myelofibrosis)- case reports	1h	W01, W02, W03, W04, W05, W06, W07
TK05	Acute leukemias (AML and ALL) and myelodysplastic syndromes- case reports	1h	W01, W02, W03, W04, W05, W06, W07
Tk06	Malignant lymphoid disorders- lymphomas, chronic lymphocytic leukemia- case reports	1h	W01, W02, W03, W04, W05, W06, W07
Tk07	Malignant lymphoid disorders- multiple myeloma and other monoclonal gammopathies- case reports	1h	W01, W02, W03, W04, W05, W06, W07
	Practical classes:		
TK01	Practical classes at patient's bed in the Department of Hematology and Transplantology	19h	U01, U02, U03, U04, U05, U06, K01, K02, K03, K04, K05, K06
TK02	Final test.	1h	W01, W02, W03, W04, W05, W06, W07

Booklist

Obligatory literature:

1. Walker BR, Colledge NR "Davidson's Principles and Practice of Medicine; 24st Edition

2. Y. Gargani "Haematology and Immunology " Crash Course 5th Edition, 2018.

Supplementary literature:

1. Kaushansky K, Lichtman M „Williams Hematology" 10th Edition

Student's workload (balance sheet of ECTS credits)

Form of student's activity (in-class participation; activeness, produce a report, etc.)	Student's workload [h]		
	Tutor	Student	Average
Contact hours with the tutor	10		
Time spent on preparation to seminars/ practical classess	20		
Time spent on reading recommended literature	20		
Time spent on writing report/making project			
Time spent on preparing to colloquium/ entry test	5		
Time spent on preparing to exam			
Other			
Student's workload in total	55		
ECTS credits for the subject (in total)	2		

Remarks

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* Selected examples of methods of assessment:

EP – written examination

EU – oral examination

ET – test examination

EPR – practical examination

K – colloquium

R – report

S – practical skills assessment

RZC – practical classes report, incl. discussion on results

O – student's active participation and attitude assessment

SL – lab report

SP – case study

PS - assessment of student's ability to work independently

W – entry test

PM – multimedial presentation

other...

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