



# Pomeranian Medical University in Szczecin

## SYLLABUS of the MODULE (SUBJECT) General Information

<b>Module title:CLINICAL ALLERGOLOGY</b>	
Module type	Clinical allergology
Faculty PMU	Faculty of Medicine and Dentistry
Major	Medicine
Level of study	long-cycle (S2J)
Mode of study	full-time studies
Year of studies, semester	Year IV, semester VIII
ECTS credits (incl. semester breakdown)	
Type/s of training	seminars (15h)/practical(16h)
Form of assessment	<input checked="" type="checkbox"/> graded assessment: <ul style="list-style-type: none"> <li><input type="checkbox"/> descriptive</li> <li><input checked="" type="checkbox"/> test</li> <li><input type="checkbox"/> practical</li> <li><input type="checkbox"/> oral</li> </ul> <input type="checkbox"/> non-graded assessment <ul style="list-style-type: none"> <li><input type="checkbox"/> final examination <ul style="list-style-type: none"> <li><input type="checkbox"/> descriptive</li> <li><input type="checkbox"/> test</li> <li><input type="checkbox"/> practical</li> <li><input type="checkbox"/> oral</li> </ul> </li> </ul>
Head of the Department/ Clinic, Unit	DR N.MED. IWONA POZIOMKOWSKA-GĘSICKA
Tutor responsible for the module	Dr n. med. IWONA POZIOMKOWSKA-GĘSICKA
Department's/ Clinic's/ Unit's website	<a href="https://www.pum.edu.pl/studia_iii_stopnia/informacje_z_jednostek/wmis/zakad_alergologii_klinicznej/">https://www.pum.edu.pl/studia_iii_stopnia/informacje_z_jednostek/wmis/zakad_alergologii_klinicznej/</a>
Language	English

**Detailed information**

<b>Module objectives</b>		<p>The students should see, understand and solve problems related to morbid hypersensitivity. This concept is commonly and erroneously associated with the mechanism of allergy. However, it has a broader meaning. Describes the episodic and chronic symptoms of response to stimuli tolerated by the general population, which do not result from a specific immune response. Due to the specifics of the dentist's work, particular importance are: non-steroidal anti-inflammatory drugs, antibiotics, latex and materials used in dentistry as well as common environmental factors that are most often allergens that cause symptoms of allergic periodic and perennial rhinitis and asthma, so-called oral allergy syndrome, urticaria and angioedema, and anaphylaxis. Practical knowledge about allergic contact eczema, including changes in mucous membranes and the possible causative role of drugs and materials used in dentistry, is equally important. The students should know the principles of the diagnosis of morbid hypersensitivity and the possibilities of prevention in terms of individual patients' good. That is why we present the basic diagnostic techniques and principles of treatment of hypersensitivity symptoms and the possibility of selecting safe substitute drugs (antibiotics, local anesthetic agents and analgesics).</p>
<b>Prerequisite /essential requirements</b>	<b>Knowledge</b>	<p>Knowledge acquired at earlier stages of education with particular emphasis on the following concepts: stimulus, reaction, individual and "normal" reaction, resistance, tolerance, hypersensitivity, allergy, sensitivity, specificity, prediction</p>
	<b>Skills</b>	<p>Applicable to each doctor canon of medical proceedings (medical history, physical examination, first diagnosis, diagnostic program, final diagnosis, treatment). This also applies to the principles of medical reasoning, taking into account the principle of causality and the ability to correctly logically deduce.</p>

	Competences	<p>Subjective treatment of the patient and care for his individual good and ethos of the profession in line with the message of the Code of Medical Ethics, with particular emphasis on recording:</p> <p><b>The biggest ethical order for a doctor is the good of the patient - <i>salus aegroti suprema lex esto</i>. Market mechanisms, social pressures and administrative requirements do not absolve physicians from compliance with this principle (Article 2 point 2)</b></p>
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### 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)	Method of verification of learning outcomes*
W01	Knows genetic, environmental and epidemiological predisposition of most frequent diseases	K_E.W1	
W02	knows principles for the nutrition of healthy and sick children, principles of vaccination and health balance in children	K_E.W2	
W03	<p>knows and understands causes, symptoms, rules of diagnosis and therapeutic procedures in terms of the most frequent pediatric diseases:</p> <p>a) rickets, tetany, convulsions</p> <p>b) congenital heart diseases, inflammation of myocarditis, pericarditis and endocarditis, cardiomyopathy, cardiac arrhythmia, arterial hypertension, syncope</p> <p>c) acute and chronic diseases of upper and lower airways, congenital defects/malformations/ of respiratory tract, tuberculosis, mucoviscidosis, asthma, allergic rhinitis, urticaria, anaphylactic shock, angioneurotic edema</p> <p>d) ischemia, hemorrhagic diathesis, marrow failure, childhood cancer incl. solid tumours</p> <p>e) acute and chronic abdominal pain, vomiting, diarrhea, constipation, gastrointestinal bleeding, chronic peptic ulcer disease, non-specific enteropathy, hepatopathy, cholestasis and other acquired and congenital diseases of alimentary tract</p> <p>f) urinary tract infections, congenital malformation of urinary tract, nephrotic syndrome, nephrolithiasis, acute and chronic renal failure, acute and chronic renal inflammation, renal tract diseases, dysuria, vesicoureteral reflux</p> <p>g) abnormal growth, diseases of thyroid and parathyroid, adenopathy, diabetes, obesity and disturbances of maturation and functions of gonads,</p> <p>h) infantile cerebral palsy, meningoencephalitis, epilepsy</p> <p>i) most frequent infantile infectious diseases j) genetic syndrome</p> <p>k) diseases of connecting tissue, rheumatic fever, adolescence arthritis, systemic lupus, dermal-muscular inflammation</p>	K_E.W3	

W04	<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, 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, dysshematopoiesis 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, over hydration, electrolytic equilibrium disorder, acidosis and alkalosis</p>	K_E.W7	
W05	knows major features, environmental and epidemiologic conditions of most frequent human skin diseases	K_W33	
W06	knows types of biological materials used in laboratory diagnostics and rules governing sampling	K_E.W37	
W07	knows theoretical and practical bases of laboratory diagnostics	K_E.W38	
W08	knows and understands possibilities and limitations of laboratory examinations in emergency situations	K_W39	
W09	lists indications for implementation of monitored therapy	K_E.W40	
W10	defines basic pharmacological and economic concepts	K_E.W41	

W11	Knows the concepts describing the individual and corresponding accepted "norm" how the body reacts to stimuli surrounding environment		
W12	Knows the concepts describing the morbid hypersensitivity and its determinants, as well as the clinical symptoms of hypersensitivity allergic and non-allergic		
W13	Knows the rules of recognition of morbid hypersensitivity allergic and non-allergic		
W14	Knows the definition of atopy and atopic disease pathogenic factors, symptomatology its phenotypes, as well as sources of potential airborne allergens. He can critically interpret the results of modern epidemiological studies. He knows the principles of diagnosis and treatment: atopic dermatitis allergic rhinitis and conjunctivitis IgE-mediated asthma IgE-mediated allergy is not associated with atopy "		
W15	knows the definition of allergic contact dermatitis, the main sources of potential allergens, as well as the principles of its diagnosis and treatment. He can differentiate eczema, allergic and non-allergic		
W16	Knows the conditions of morbid hypersensitivity to the components of food as a source of potential allergens and food additives and natural substances and medicines that are not allergens. Know the related syndromes, identification rules for food ingredients that cause symptoms, diagnosis of food allergy, as well as indications for the use of elimination diets		
W17	Knows the definition of anaphylaxis and its compounds with hypersensitivity allergic or non-allergic. He can determine the nature of the symptoms, to assess the degree of their severity and differentiate them from symptoms of other chronic diseases reactions OR. He knows the rules and indications Treatment Adrenaline, other drug use, and treatment of hypovolemic shock. He knows the rules identifying the trigger anaphylaxis, as well as the principles of prevention and individual prevention in risk groups.		
W18	knows and distinguishes himself from the notion of "adverse event associated with medication" and "drug-induced adverse reaction", as well as the two main types of adverse reactions. Associated adverse drug reactions Type B with morbid hypersensitivity to drugs. He knows the group of drugs most commonly cause hypersensitivity reactions and related frequently symptoms. He knows the rules of recognition of drug hypersensitivity and the reporting of adverse events and reactions to the central register		
U01	takes history interview of adult patient	K_E.U1	
U02	takes history interview of child and its family	K_E. U2	
U03	carries out complete and guided physical examination of adult patient	K_E.U3	
U04	carries out physical examination of child of any age	K_E.U4	
U05	evaluates general state, state of patient's consciousness and awareness	K_E.U7	
U06	carries out differentiation diagnostics of most frequent diseases in adults and children	K_E.U12	

U07	evaluates and describes somatic and mental state of patients	K_E.U13	
U08	recognizes states representing direct threat to life	K_E.U14	
U09	recognizes states following consumption of alcohol, narcotics and other stimulants	K_E.U15	
U10	plans diagnostics, therapeutic and preventive procedures	K_E.U16	
U11	analyzes possible adverse effects of certain drugs and interactions between them	K_E.U17	
U12	suggests individualization of applicable therapeutic guidelines and other treatment methods because of ineffectiveness or contraindications with regard to standard treatment	K_E.U18	
U13	qualifies patients for home and hospital treatment	K_E.U20	
U14	defines states in which treatment according to guidelines for a particular disease is limited by patients' life expectancy, functional state or preferences	K_E.U21	
U15	interprets laboratory investigations and identifies reasons for deviations	K_E.U24	
U16	performs basic procedures and operations, incl.: a) body temperature measurement, heart rate measurement, 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	
U17	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	
U18	interprets pharmaceutical specifications of medicinal products and reviews adverts regarding drugs	K_E.U31	
U19	plans specialist consultations	K_E.U32	
U20	recognizes agony and states death	K_E.U37	
U21	keeps medical documentation	K_E.U38	
U22	able to use the algorithm to recognize allergic and non-allergic hypersensitivity		

U23	can independently perform and interpret skin tests for assessing specific hyperreactivity of the skin and the diagnosis of allergies, as well as the results of determinations of IgE		
U24	can determine the indication and interpret the results of lung function tests		
U25	can recognize morbid hypersensitivity reactions in patients with episodic exacerbations and chronic symptoms and determine the allergic or nonallergic mechanism		
U26	takes history interview of adult patient	K_E.U1	
U27	takes history interview of child and its family	K_E. U2	
U28	carries out complete and guided physical examination of adult patient	K_E.U3	
K01	working with the patient: a) examines providing a sense of intimacy, understanding, safety b) planning diagnostic directs the balance of expected risks and benefits c) provide information on test results, the health status and rules the proposed treatment method understandable d) is aware of patients' rights		
K02	working in a team: a) co-operates with team members; can co-operate within a group and take different roles b) shows proper respect to all team members, regardless of Depending on the nature of the business c) cares for safety of colleagues, the environment and himself/herself		
K03	respects patients/customers/social groups and makes decisions in their best interest		

Table presenting LEARNING OUTCOMES in relation to the form of classes

No. of learning outcome	Learning outcomes	Type of training						
		Lecture	Seminar	Practical classes	Clinical classes	Seminars	Elective learning	Other ..
W01	K_E.W1							
W02	K_E.W2							

W03	K_E.W3		X					
W04	K_E.W7		X		X			
W05	K_W33		X					
W06	K_E.W37		X					
W07	K_E.W38		X		X			
W08	K_W39		X					
W09	K_E.W40							
W10	K_E.W41							
W11			X					
W12			X					
W13			X		X			
W14			X		X			
W15			X		X			
W16			X					
W17			X					
W18			X					
U01	K_E.U1				X			
U02	K_E.U2				X			
U03	K_E.U3				X			
U04	K_E.U4				X			
U05	K_E.U7				X			
U06	K_E.U12				X			
U07	K_E.U13				X			
U08	K_E.U14				X			
U09	K_E.U15				X			
U10	K_E.U16				X			
U11	K_E.U17				X			
U12	K_E.U18				X			
U13	K_E.U20		X					
U14	K_E.U21		X					
U15	K_E.U24		X					



U16	K_E.U29				X			
U17	K_E.U30				X			
U18	K_E.U31				X			
U19	K_E.U32				X			
U20	K_E.U37		X					
U21	K_E.U38		X					
U22					X			
U23					X			
U24					X			
U25			X		X			
U26	K_E.U1		X					
U27	K_E. U2		X					
U28	K_E.U3		X					
K01								
K02								
K03			X					

Table presenting TEACHING PROGRAMME			
No. of a	Teaching programme	No. of	References to
<b>BLOCK</b>			
<b>Seminars</b>			
TK01	Concepts describing the individual and corresponding to the adopted standard way to respond to the stimuli surrounding environment	1	W11
TK02	Concepts describing „morbid hypersensitivity” and its mechanisms and clinically significant manifestations of allergic and non-allergic hypersensitivity	1	W12
TK03	Recognition „morbid hypersensitivity”. Diagnostic algorithm	1	W04; W13; U01; U02;
TK04	Atopic disease and its phenotypes	1	W14
TK05	Phenotypes of allergic rhinitis and asthma	3	W02; W14;
TK06	The phenotype of atopic dermatitis	1	W05; W14
TK07	Allergic contact dermatitis	1	W05; W15
TK08	Allergic and non-allergic food hypersensitivity	2	W02; W16
TK09	Allergic and non-allergic anaphylaxis	2	W04; W17;
TK10	Drug hypersensitivity. Adverse drug reactions Type B	2	W18; U14;U15;

Booklist
Obligatory literature: Materials provided exercise and seminars
1. <b>EAACI website guidelines.</b>
2. <b>www.worldallergy.org. Disease, Focus Reviews &amp; News</b>
Supplementary literature:
1. <b>www.ginasthma.org.</b>
2. <b>European Academy of Allergy, Clinical Immunology Food Allergy, Anaphylaxis Guidelines Group. EAACI guideline: Anaphylaxis (2021 update).</b> Muraro A, Worm M, Alviani C, Cardona V, et al. Allergy. 2021 Aug 3. doi: 10.1111/all.15032. Epub ahead of print. PMID: 34343358.

Student's workload	
Form of student's activity (in-class participation; activeness, produce a report, etc.)	Student's workload [h]
	Tutor
Contact hours with the tutor	8
Time spent on preparation to seminars/ practical classess	3
Time spent on reading recommended literature	2
Time spent on writing report/making project	
Time spent on preparing to colloquium/ entry test	2
Time spent on preparing to exam	
Other .....	
Student's workload in total	16
<b>ECTS credits for the subject (in total)</b>	1.5
Remarks	
Work without outpatientsClinic-13h	

\* 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

RZĆ – 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...