



Pomeranian Medical University in Szczecin

SYLLABUS of the MODULE (SUBJECT) valid from the academic year 2020/2021

General Information

| Module title | INTERNAL DISEASES- HEMATOLOGY |
|---|---|
| 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) | |
| Type/s of training | <i>V-th year: lectures (5h), seminars (7h) and practical classes (20h)</i> |
| Form of assessment | <p><i>X graded assessment: *</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>descriptive</i> <input checked="" type="checkbox"/> <i>test</i> <input type="checkbox"/> <i>practical</i> <input type="checkbox"/> <i>oral</i> <p><input type="checkbox"/> <i>non-graded assessment *</i></p> <p><i>- final examination: *</i></p> <ul style="list-style-type: none"> <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> |
| Department's/ Clinic's/ Unit's website | <i>Department of Hematology and Transplantology Unii Lubelskiej Street 1, 71-252 Szczecin Pomeranian Medical University Phone: +48-91-425-33-47 e-mail: klinhem@pum.edu.pl</i> |
| 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 | Single-choice final test (FT) 20 questions, Regular attendance, FT at least 60% of correct answers on test |
| W02 | 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, cholepathy, cholecystopathy 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 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 f) diseases of hematopoietic system, incl.: panmyelophthisis, anemia, granulocytopenia and granulocytosis, trombocytopenia, acute leukemia, myeloproliferative and | K_E.W7 | |

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|-----|---|---------|--|
| | <p>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> | | |
| 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 | <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> <p>g) epidermal tests</p> <p>h) intradermal and scarification tests</p> | K_E.U30 | Single-choice final test (FT) 20 questions, Regular attendance, FT at least 60% of correct answers on test |
| K01 | Demonstrates the awareness for self-education, understands the need for continuing professional education, can inspire and organize learning processes in others | K_K03 | |
| 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 | | | | | |

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|------|--|-----|--|
| 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; 21st Edition

2. Y. Gargani "Haematology and Immunology " Crash Course 4th Edition, 2012.

Supplementary literature:

1. Kaushansky K, Lichtman M „Williams Hematology” 9th 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) | | | |

| 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...