

REQUIREMENTS

<p>Semmelweis University, Faculty of General Medicine – single, long-cycle medical training programme</p> <p>Name of the host institution (and any contributing institutions): Department of Internal Medicine and Hematology</p>			
<p>Name of the subject: Belgyógyászat II.</p> <p>in English: Internal Medicine II</p> <p>in German: Innere Medizin II.</p> <p>Credit value: 7</p> <p>Semester: 9-10, Subject is provided in the block system <i>(as defined in the curriculum)</i></p>			
<p>Total number of classes per block: 105</p>	<p>lectures: 28</p>	<p>practical lessons: 77</p>	<p>seminars:</p>
<p>Type of subject: <u>compulsory</u> optional elective</p>			
<p>Academic year: 2023/2024</p>			
<p>Language of instruction, for optional or elective subjects: English</p>			
<p>Course code: AOKBHK783_2A</p>			
<p>Course coordinator: Dr. Masszi Tamás</p> <p>Place of work, phone number: Department of Internal Medicine and Hematology, +36-1-375-7364</p> <p>Position: Head of the Department</p> <p>Date and number of habilitation: 2010.06.07., száma: 305</p>			
<p>Objectives of the course and its place in the medical curriculum:</p> <p>The primary objective of the course in internal medicine for fifth-year students is the symptom-based and patient-oriented education of haematology, immunology, rheumatology, and infectology. Students become familiar with the diagnostics and treatment of the most common disorders of the above disciplines.</p> <p>Besides the above mentioned, integrative medicine, the holistic approach to medicine is also taught. This means the presentation of the coordinated patient care between internal medicine subspecialties and other related professionals and the illustration of the complexity of real life cases. Differential diagnosis also requires utilization of knowledge acquired from different specialties in the diagnostic phase of a case. With this complex program we emphasize the practical importance of internal medical approach and pursuit and teach its application in the real world.</p>			
<p>Place of instruction (address of lecture hall or seminar room etc.):</p> <p>Semmelweis University, Department of Internal Medicine and Hematology 1088 Budapest, Szentkirályi u. 46. Budai Irgalmasrendi Kórház 1027 Budapest, Frankel Leó út 17-19 Országos Reumatológiai és Fizioterápiás Intézet 1023 Budapest, Frankel Leó út 25-29. Dél-Pesti Centrumkórház Országos Hematológiai és Infektológiai Intézet, Szent László Telephely 1097 Budapest, Albert Flórián u. 5-7.</p>			

Competencies acquired through the completion of the course:

Education of internal medicine commences in third year by teaching propedeutics and finishes in the final year – providing a backbone for medical education. Our major objective throughout this period is the integration of knowledge provided by preclinical and clinical subjects into our curriculum. By the time of graduation, our students – the future doctors – should have up-to-date theoretical and practical knowledge, as well as an ability to make appropriate interpersonal relationship with patients, relatives, and medical personnel that together, provides the basis of independent medical decisions.

Prerequisites for course registration and completion:

Internal Medicine I, **Orvosi képalkotás, Laboratóriumi medicina**

Conditions for concurrent course registration and permission thereof in the case of a multi-semester subject:**Student headcount conditions for starting the course (minimum, maximum) and method of student selection:**

Students are registered in the NEPTUN System to the blocks.

Detailed course description:

(Theoretical and practical instruction must be broken down into lessons (weeks), numbered separately. Please provide the names of lecturers in both types of lessons, indicating guest lecturers. This information is not to be attached separately. CVs of guest lecturers, however, must be attached.)
Internal Medicine II is taught in a block system. During the 5-week block, students spend 14 days (8 hours/day) in the Department. Theoretical and practical (bedside) classes are taught. Students are assigned into smaller groups for bedside practices, case discussions and consultations that are held in rotation resulting in fewer students learning about a given topic at a time.

According to the topics below, classes are taught also dependent on the available patients.

Hematology*Topic list of the lectures:*

1. Cellular therapies
2. Blood count evaluation
3. White blood cell abnormalities
4. B signs, lymphadenopathies
5. Acute myeloid leukemias
6. Myelodysplastic syndromes
7. Thrombocytopenias and thrombocytopeny. Haemophilias. Increased coagulation (thrombophilias). Coagulopathies.

Topic list of the practices:

1. Neutropenic fever
2. Palliative and curative treatment of acute leukaemia
3. NHL low-grade / NHL high-grade
4. Patient with anaemia. Transfusion.
5. Bone marrow sampling. Presentation of sampling
6. Complex cases at bedside

Topic list of the consultations:

1. Ph negative myeloproliferative diseases
2. Myeloma
3. Anaemia – case based discussion
4. CML
5. Hemophilia/DIC
6. AIHA/ITP
7. Hodgkin

Infectology

Topic list of the lectures:

1. Emergencies in infectology
2. HIV/AIDS, tropical diseases in Hungary
3. Invasive mycosis
4. Primary immunodeficiencies
5. Vaccination
6. Multiresistant pathogens, infection control and antimicrobial stewardship

Topic list of the practices:

1. Urinary tract infections
2. Airway tract infections
3. Skin and soft tissue infections
4. Infectological situations in practice (sepsis, meningitis, Lyme, pharyngitis)

Topic list of the consultations:

1. Introduction to infectology
2. FUO
3. Sepsis
4. Infective endocarditis
5. Antibiotics, microbiological sampling, assessment of the culture results

Immunology

Topic list of the lectures:

1. Autoimmunity
2. Vasculitides of the great vessels
3. HANO
4. Autoimmune myopathies
5. Sjögren's syndrome – progressive systemic sclerosis

Topic list of the practices:

1. SLE
2. Therapy of autoimmune diseases. Side effects of steroid therapy
3. Small vessel (ANCA-associated) vasculitis
4. Primary and secondary immunodeficiency
5. Rheumatoid arthritis
6. Spondylarthropathies
7. Gout, arthrosis
8. Complex immune cases

Topic list of the consultations:

1. Allergic diseases

Related subjects due to interdisciplinary fields (both compulsory and elective) and potential overlaps between subjects:

Infective arthritis – traumatology, orthopedics

Intraabdominal infections – surgery

Sepsis – intensive therapy

Autoimmun diseases – dermatology, ophthalmology, ENT

Attendance requirements; conditions under which students can make up for absences and the method of absence justification:

According to the Study and Examination Regulations, students are required to participate on at least 75% of all sessions.

<p>Form of assessment in the study period: None</p>
<p>Number and type of assignments for individual work and the deadline for submission: None.</p>
<p>Requirements to obtain the teacher's signature: Participate on at least 75% of all sessions, proven by attendance sheets</p>
<p>Type of assessment (<i>comprehensive examination, end-term examination, term-grade, term-grade on a three-grade rating scale, no examination</i>): Semi-final (5 scale grade) Each course is concluded by a bedside practical skill exam followed by clinical oriented oral exam. During the exam the students are required to answer questions based on the knowledge acquired during practical sessions and by reading the compulsory chapters of the theoretical curriculum, by elaborating on 3 themes of the titles below.</p>
<p>Examination requirements: (<i>list of examination topics, subject areas of tests / examinations, lists of mandatory parameters, figures, concepts and calculations, practical skills</i>) <i>Hematology</i></p> <ol style="list-style-type: none"> 1. Investigation of an anemic patient 2. Iron-deficiency anemia 3. Macrocytic anemia 4. Anaemia associated to chronic diseases 5. Hemolytic anemia 6. Aplastic anemia 7. Checking of the coagulation system 8. Evaluation of thrombosis 9. Acquired thrombophylia 10. Antiphospholipid syndrome 11. Hereditary hemophylia (Hemophylia A and B) 12. Von Willebrand disease 13. Anticoagulant therapy (indications, implementations) 14. DIC 15. Investigation of a thrombocytopenic patient 16. Thrombocytosis 17. TTP/HUS 18. ITP 19. Symptomatology of the lymphoproliferative diseases 20. Evaluation of lymphadenopathy 21. Non-Hodgkin lymphomas 22. Follicular lymphoma 23. Diffuse large B-cell lymphoma

24. Chronic lymphocytic leukemia/ Small lymphocytic lymphoma

25. Myeloma multiplex

26. Hodgkin-lymphoma

27. Symptomatology of myeloproliferative diseases

28. Acute myeloid leukemia

29. Acute lymphoid leukemia

30. Ph-negative myeloproliferative neoplasia (PV, ET, MF)

31. Chronic myeloid leukemia

32. Myelodysplasia syndroma

33. Autologous stem cell transplantation

34. Allogenic stem cell transplantation

Infectology

1. Basic principles of infectology and antimicrobial therapy (infectious disease anamnesic history and physical examination, targeted, empirical and prophylactic therapy, importance of source control, blood stream infections)

2. Common antibiotics, groups of antibiotics and their clinical use (penicillins, cephalosporins, carbapenems, glycopeptids, metronidazol; bacteriostatic and bactericid antibiotics, expected susceptibility – natural resistance; important factors: host, pharmacokinetics, mechanism of action)

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3. Common antibiotics, groups of antibiotics and their clinical use (lincosamids, macrolids, rifampin, tetracyclins, fosfomycin, nitrofurantoin, fluoroquinolones: bacteriostatic and bactericid antibiotics, expected susceptibility – natural resistance; important factors: host, pharmacokinetics, mechanism of action)

4. FUO – fever of unknown origin

5. Upper respiratory tract infections (sore throat, pharyngitis, otitis media, sinusitis, acute bronchitis)

6. Mononucleosis syndrome

7. Community acquired pneumonia

8. Nosocomial pneumonia

9. UTI (asymptomatic bacteriuria, cystitis, prostatitis)

10. UTI (pyelonephritis, catheter associated UTI)

11. Sepsis, septic shock

12. Intraabdominal infections (cholangitis/cholecystitis, abdominal abscess [liver, spleen, psoas], diverticulitis, peritonitis)

13. Endocarditis.

14. Lyme

15. Acute bacterial meningitis, brain abscess, neurotop viral infections
16. Erysipelas, cellulitis, fasciitis necrotisans, toxic shock syndrome, infectious arthritis, osteomyelitis
17. Neutropenic fever, systemic mycosis, infections of the immunosuppressed patient
18. Infective diarrhoea (bacterial, viral, Cl.diff.), food poisoning
19. HIV. AIDS and AIDS related diseases
20. Vaccines for adults and their importance. The flue.
21. Antimicrobial resistance, resistant microorganisms and their clinical importance; antimicrobial stewardship.

Immunology/rheumatology

1. SLE clinical picture
2. SLE diagnostics and treatment
3. Rheumatoid arthritis clinical picture
4. Rheumatoid arthritis diagnostics and treatment
5. Seronegative spondylarthritises
6. Gout
7. Vasculitises of the small arteries
8. Vasculitises of the middle and great arteries
9. Polyarteritis nodosa
10. Sjögren's syndrome
11. Autoimmune myopathies
12. Progressive systemic sclerosis
13. Primary and secondary immunodeficiencies
14. Allergy
- 15. Differential diagnosis of arthritis**

Method and type of grading:

Forming a grade at the end of the course is based on a 5-grade result system reflecting on the performance on the oral exam. Based on the exam results, the students will be awarded grades of Excellent (5), Good (4), Satisfactory (3), Pass (2), or Fail (1).

List of course books, textbooks, study aids and literature facilitating the acquisition of knowledge to complete the course and included in the assessment, precisely indicating which requirement each item is related to (e.g., topic by topic) as well as a list of important technical and other applicable study aids:

Continuously updated materials available on the website of the Department and on Moodle.
 Oxford Handbook of Clinical Medicine 10th Ed., Weatherall, Ledingham, Warrel, 2020
 Harrison's Principles of Internal Medicine 21st Ed., McGraw-Hill, 2022
 Bates' Guide to Physical Examination and History Taking. 12th Ed., Wolters Kluwer, 2016

Signature of habilitated instructor (course coordinator) announcing the course:

Signature of the director of the host institution:
Date of submission: