**Must be: Course completion requirements, Literature, Requirements to the exam, Course completion requirements**

**INTERNAL MEDICINE III - Learning outcomes (LEARNING OBJECTIVES)**

5th grade; Continuously throughout the academic year.

- After completing the cycle of lectures and practicals, the student should be able to carry out a differential diagnostic assessment of a given symptom, syndrome or disease state, as they are listed in the syllabus of this year.

- For the individual differential diagnostic topics discussed, he should know the basic etiology and pathophysiology of the diseases that come into consideration for the given symptom.

- After lectures and completion of practicals, a competent student should carry out a differential diagnostic assessment of the given disease state and be able to propose examinations with which to further guide the diagnosis.

- The student should learn how to correctly question a patient with various symptoms or signs of disease (anemia, jaundice, cough, etc.) so that he can propose an examination program to refine his diagnostic reasoning after taking an anamnesis and doing physical examination.

- The student should always be able to explain what diagnostic options he is considering, why, and how he intends to narrow down the diagnosis.

- From the data obtained from the interview with the patient and from the results of the physical examination, the student should be able to establish and verbally and in writing formulate his differential diagnostic assessment - which diseases come into consideration in a given situation, or use scoring systems to determine the probability of that disease.

- Based on the medical history and physical examination, the student should be able to suggest further investigation procedures, i.e. additional laboratory, imaging, functional or other tests, which will distinguish which diagnosis is likely to be involved.

- Based on the analysis of the results of the examination and the clinical context, the student establishes a working diagnosis and proposes treatment.

- The student should learn to identify and concisely name his differential diagnostic balance in a short message in a few sentences.

- The above assumes that the student has studied and knows the systematics of the individual branches of internal medicine. They must master the key symptoms of individual diseases that were the subject of previous semester lectures. It goes without saying that the knowledge presented in the current subject this year will be used.

- The student should acquire the competence to identify which data are relevant from the anamnesis, from the physical examination, or from the available older laboratory and imaging tests, and to logically compile and justify their differential-diagnostic considerations.

- Knowledge of the physiological values ​​of basic laboratory tests (blood count values, serum minerals, N-catabolites, liver tests, inflammation parameters, cardiomarkers, lipidogram, values ​​obtained from blood gas analysis, coagulation tests, etc.) is an essential prerequisite for the correct interpretation of all findings.

- Based on participation in lectures, practicals and continuous study, the student should acquire the ability to formulate a diagnostic reasoning in writing and orally.

- The student remembers that the medical documentation is an official document, which, for example, in the case of a lawsuit, also plays the role of documentary evidence, with all the consequences.

- We assume that a student who has reached the 5th year of medicine builds on not only the knowledge, skills and competences acquired in the subject INTERNAL MEDICINE I and II in previous years, but also on the knowledge he acquired while studying theoretical fields and preclinical disciplines. For example, in the differential diagnosis of fever, we assume that the student knows the types of white blood cells and their differential in health and in acute infection, biochemical markers of inflammation, the clinical presentation of respiratory, digestive and urinary system infections, skin or CNS infections, and others. He should know the drugs that can cause a pyretic or other side reactions, know the importance of travel and pet breeding history in unclear febrile conditions, etc. If the student has forgotten this knowledge, it is essential that he refreshes it through self-study, in parallel with the study of the INTERNAL MEDICINE III clinical subject.

**INTERNAL MEDICINE III – Syllabus (lectures)**

**Differential diagnosis of chest pain**

**Differential diagnosis of dyspnea**

**Differential diagnosis of edema**

**Differential diagnosis of altered states of consciousness**

**Differential diagnosis of cough and haemoptysis**

**Differential diagnosis of fever and sepsis**

**Differential diagnosis of proteinuria, hematuria, pyuria, oligoanuria**

**Differential diagnosis of abdominal pain**

**Differential diagnosis of splenomegaly and lymphadenomegaly**

**Differential diagnosis of anemias**

**INTERNAL MEDICINE III - ANNOTATION**

In the 5th year, the subject Internal medicine III contains a series of 12 lectures, as well as a 10-day continuous block of practical teaching on the topic of differential diagnosis of various disease states in internal medicine. Practical teaching takes place mainly in the inpatient wards of the 1st detp. of Internal medicine and the Cardiology clinic. Each study group completes one 10-day practice block, 5 hours a day. Internships are focused on the aforementioned differential-diagnostic topics of internal medicine. Students perform history taking and physical examination of patients with the mentioned symptoms, syndromes and disease units. During practicals, according to the current possibilities of the given department (patients with the given symptom are present), students under the guidance of their teachers focus on typical aspects (anamnesis + clinical presentation) of individual conditions. In the case of individual patients, they learn to identify the likely diagnosis from the possible variants based on the anamnesis, physical examination and analysis of laboratory and graphic examinations. After narrowing down the initially broad differential diagnosis, under the guidance of the teachers, they propose and justify treatment procedures. We still emphasize that careful interviewing and physical examination of the patient are crucial. After the established treatment, students evaluate the response to the therapy in the following days. Within the 10-day block, according to operational possibilities, students will visit the components of the complement - invasive and non-invasive cardiology, ICU, gastroenterology, hemodialysis, or individual outpatient departments and urgent admition department.

**INTERNAL MEDICINE III** - **course completion requirements**

Full participation in practices (we tolerate 20% excused absences) is a condition for credit. Lectures are optional, but attendance is strongly recommended.

**INTERNAL MEDICINE III** - **examination requirements**

There will be no examination of the subject Internal Medicine III.

**INTERNAL MEDICINE III - Literature**

1. Walker BR et al.: Davidson's Principles & Practice of Medicine, 24th ed., Elsevier, 2022, last ed., respectively

2. amboss.com

3. Douglas G. Et al.: Macleod's Clinical Examination, Elsevier, last ed.

4. Strachan MWJ et al.: Davidson's 100 Clinical Cases, Elsevier

5. Japp AG et al.: Macleod's Clinical Diagnosis, Elsevier

4. Hampton JR: ECG made easy, Elsevier, last ed.

5. Hampton JR: 150 ECG problems, Elsevier, last ed.

prof. MUDr. Martin Matějovič, Ph.D. doc. MUDr. Jaromír Eiselt, Ph.D.

**An example of the organization of subgroup rotation during practical training at the 1st Internal Clinic and Cardiology Clinic during a 10-day program.**

Dear students of group x and y (Internal Medicine III, year 5),
on Monday xx/yy/zzzz your 10-day internal medicine teaching block begins.

I am holding an informational meeting on Monday xx/yy/zzzz. We will meet in the seminar room (floor -1, entrance B) of the 1st internal clinic at x a.m. The condition for granting credit is 80% participation, so we tolerate two days of absence, but do not abuse it. You are divided into 3 subgroups and will rotate through the wards, see the attached schedule. with regards doc. Eiselt

Plan:

subgroup a) after info meeting will go to the secretariat of the Cardiology Clinic (opposite the Cardiology ICU, next to CT), ground floor, on the left from CT/MRI.

Subgroup b) after info meeting will go to floor 5B, look for docent Mareš.

Subgroup c) after info meeting will go to Gastroenterology, 3rd floor, where you will be picked up by MUDr. Balihar (ask nurses, at room SESTERNA).

all subgroups: on the day designated for the MJIP go at 8 h to Metabolic ICU - Entrance B, ground floor, in the end of the corridor behind CT and MRI, look for MUDr. Ivan Novák

all subgroups: on the days designated for the internship at ward 5A go at 8 h to the 5th floor, ward A, look for MUDr. Kašpárek or MUDr. Krčma

During the clerkship let your attendance list signed and in the end give it to secretary Nováková (2 floor) for credits.

