Program of Study: General Medicine
Course: Internal Medicine IV
Abbreviation: IN0/VA043
Schedule: 320 hours of practical training and seminars
Course Distribution: 6th year, 11th and 12th semesters
Number of Credits: 19
Course Form: Practical training and seminars

In the academic year 2018/2019, 6th year (11th and 12th semesters) General Medicine the courses and state comprehensive (rigorosum) examinations of the Internal Medicine are organized and coordinated by the Department of Internal Medicine 2 - Gastroenterology

Teachers: Doc. MUDr. Ondřej Urban, Ph.D.
Prof. MUDr. Miloš Táborský, CSc. FESC, MBA
Prof. MUDr. Josef Zadražil, CSc.
Prof. MUDr. Tomáš Papajík, CSc.
Prof. MUDr. Vítězslav Kolek, DrSc.
Prim. MUDr. Karel Navrátil

Course: blocks

Teachers in charge of practical training:
- MUDr. V. Doupal, Ph.D, Department of Internal Medicine I – Cardiology
- Prof. MUDr. J. Ehrmann, CSc., Department of Internal Medicine II – Gastroenterology and Hepatology
- Doc. MUDr. Z. Fryšák, CSc., Department of Internal Medicine III – Nephrology, Rheumatology and Endocrinology
- Prof. MUDr. E. Faber, CSc., Department of Hemato-Oncology
- MUDr. P. Jakubec, Ph.D., Department of Respiratory Medicine
- Prim. MUDr. K. Navrátil, Department of Internal Medicine, Military Hospital Olomouc

Objectives:
A detailed introduction into the organization of the departments of internal medicine, including specialized centers and laboratories of supplementary or supporting branches of internal medicine. Mastery of a broad spectrum of basic practical skills in internal medicine. Extended theoretical knowledge and acquisition of “clinical thinking”.

Requirements:
According to the 2018/2019 time-table, 6th year English Program General Medicine students will have their Internal Medicine practical training 17. 9. – 9. 11. 2018; the Internal Medicine state exams will be held on 19.11.-23.11.2018.
Students will have their pre-state examination internal medicine practical training at an inpatient ward of one of the “parent departments” (see above – teachers in charge) for 8
Practical training preceding the internal medicine state examination aims at extending theoretical knowledge and acquiring other practical skills in undergraduate internal medicine. During their practical training, students will mainly perform activities in fact equal to duties of a house physician, with special attention being paid to bedside work supervised by an experienced physician.

Under the physician’s supervision, students have to be able to elaborate clinical notes, draw a diagnostic conclusion, propose further diagnostic and therapeutic procedures, and write a discharge report. During a ward round, students have to report on the clinical course of a patient’s disease. Each student should spend at least one day at an ICU of the respective department in order to become acquainted with principles of work in the unit (regardless of the ICU specialty).

Each student should spent at least one day at an outpatient ward of the respective department of internal medicine in order to become familiar with the principles of work in outpatient wards (regardless of the ward specialty).

Students will participate in other examinations of patients they care for or other patients as recommended by the supervising physician. The obligatory examinations are listed on the back side of the aforementioned form. For meeting all the requirements, each student’s activities mentioned in the final evaluation are important.

Practical skills to be mastered by the students include injection techniques, interpretation of ECG curves, description of basic radiographs, including CT scans, compilation of a basic diet including that for diabetic patients, and interpretation of basic laboratory markers.

Recommended literature:


### Distribution of groups for practical training on the departments and for state exams

<table>
<thead>
<tr>
<th>Group</th>
<th>Parent Dept.</th>
<th>Term of MH practical training</th>
<th>Dept. for state exam</th>
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<tbody>
<tr>
<td>Ba1</td>
<td>I.IK</td>
<td>17.9.-21.9.2018</td>
<td>StE I.IK</td>
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<tr>
<td>Ba2</td>
<td>II.IK</td>
<td>24.9.-28.9.2018</td>
<td>StE II.IK</td>
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<td>Ba3</td>
<td>III.IK</td>
<td>1.10.-5.10.2018</td>
<td>StE III.IK</td>
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<td>BaP</td>
<td>Pulm</td>
<td>8.10.-12.10.2018</td>
<td>StE II.IK</td>
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<td>BaH</td>
<td>HOK</td>
<td>8.10.-12.10.2018</td>
<td>StE I.IK</td>
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I.IK – Department of Internal Medicine I  
II.IK – Department of Internal Medicine II  
III.IK – Department of Internal Medicine III  
HOK – Department of Hemato-Oncology  
Pulm – Department of Pulmonary Diseases and Tuberculosis  
MH – Military Hospital Olomouc  
StE – State Exams  

*Note: The practical part of the state exam will be held the day before the theoretical part of state exam.*
Surname and name of the student: .................................................................

Group: ................................

**Praxis:**

<table>
<thead>
<tr>
<th>Department</th>
<th>Attendance (from–to)</th>
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Day of signed credit: .........................................................

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Questions for State Rigorous Examination in Internal Medicine after the XI\textsuperscript{th} and XII\textsuperscript{th} Term for English-Speaking Students in the Academic Year 2018/2019 (fixed combinations)

1. Cardiac arrest and cardiopulmonary resuscitation
   Hyperthyreosis
   Systemic lupus erythematosus
   Diff. dg. of hepatomegaly

2. Cardiogenic shock
   Legionella pneumonia, Pontiac fever and legionaires’ disease
   Anemia of chronic diseases
   Diff. dg. of proteinuria

3. Left-sided heart failure
   Malnutrition, vitamins and trace elements deficiency disorders
   Porphyrias
   Diff. dg. of hemoptysis

4. Right-sided heart failure
   Cholecystolithiasis and choledocholithiasis, cholecystitis and cholangitis
   Iron deficiency anemia and acute posthemorrhagic anemia
   Examination methods in rheumatology

5. Cardiac pacing (indications, pacing modes)
   Pulmonary fibrosis (idiopathic pulmonary fibrosis, secondary pulmonary fibrosis and occupational pneumoconioses)
   Osteoarthritis
   Diff. dg. of hematuria

6. Sick sinus syndrome, carotid sinus syncope
   Vitamin B12 deficiency anemia, folic acid deficiency anemia
   Congenital kidney diseases (polycystic kidney disease, IV. type collagen diseases, renal tubular acidosis)
   Examination methods of liver diseases

7. Atrioventricular blocks
   Lung cancer
   Esophageal motility disorders, diverticles, inflammations, hiatus hernias
   Diff. dg. of joints pain and swelling

8. Supraventricular tachycardias
   Gastric dyspepsia, chronic and acute gastritis and gastropathy
   Acid-base status and hydration disorders and their therapy
   Examination methods in hematology

9. Ventricular arrhythmias
   Peptic ulcer disease of stomach and duodenum
   Diabetes insipidus
   Examination methods in nephrology
10. Syncope
   Diabetes mellitus (pathophysiology, diagnostics and classification)
   Soft tissue rheumatisms
   Diff. dg. of splenomegaly

11. Primary (essential) hypertension
   Ulcerative colitis, Crohn’s disease and other rare types of colitis
   Acute glomerulonephritis and rapidly progressive glomerulonephritis
   Diff. dg. of consciousness disorders

12. Secondary hypertension
   Hepatic failure (hepatic encephalopathy and hepatorenal syndrome)
   Parathyroid diseases
   Diff. dg. of dyspnea

13. Therapy of arterial hypertension
   Portal hypertension and ascites
   Hemolytic anemias (congenital and acquired)
   Examination methods in endocrinology

14. Atherosclerosis (risk factors, prevention and therapy)
   Gastric tumors
   Acute leukemia and myelodysplastic syndrome
   Examination methods in pneumology

15. Ischemic heart disease (etiology, pathogenesis, classification)
   Chronic hepatitis and granulomatous liver diseases
   Kidneys and hypertension, vascular kidneys diseases
   Diff. dg. of cough

16. Chronic forms of ischemic heart disease (clinical manifestation and therapy)
   Diseases related to smoking (diagnosis and treatment of tobacco dependence)
   Electrolyte disorders and their therapy
   Diff. dg. of upper gastrointestinal bleeding

17. Acute myocardial infarction and its complications
   Rheumatoid arthritis and juvenile chronic arthritis
   Chronic myeloid leukemia
   Diff. dg. of icterus

18. Therapy of myocardial infarction
   Tumors of the colon and the rectum
   Hodgkin’s lymphoma
   Diff. dg. of back pain and lower back pain (pain in lumbar region)

19. Congenital heart diseases in adults
   Malabsorption syndrome
   Systemic sclerosis and Sjögren’s syndrome
   Diff. dg. of fever
20. Mitral stenosis and mitral regurgitation
   Diverticulosis, megacolon, irritable bowel syndrome
   Ph negative chronic myeloproliferative disorders (PV, ET, PMF), secondary polycythemias
   Diff. dg. of increased erythrocyte sedimentation rate

21. Aortic stenosis and aortic regurgitation
   Metabolic bone diseases
   Chronic lymphocytic leukemia and hairy cell leukemia
   Diff. dg. of diarrhea

22. Endocarditis
   Purine metabolisms disorders
   Urinary tract infection and acute interstitial nephritis (acute pyelonephritis)
   Diff. dg. of constipation

23. Myocarditis
   Acute pancreatitis
   Vasculitides
   Diff. dg. of edemas

24. Cardiomyopathies
   Thrombophilias (congenital and acquired)
   Goiter and thyroiditis
   Diff. dg. of abdominal pain

25. Pericarditis
   Liver, gallbladder and biliary tumors
   Nephrotic syndrome
   Diff. dg. of obesity

26. Influenza
   Therapy of diabetes mellitus
   Polymyositis and dermatomyositis
   Stem cell transplantation (autologous and allogeneic)

27. Pulmonary embolism and thromboembolic disease
   Chronic glomerulonephritis
   Monoclonal gammapathies and multiple myeloma
   Diff. dg. of body weight loss

28. Pulmonary hypertension (primary, secondary, chronic cor pulmonale)
   Acute viral hepatitis (A to E types and other viral infections)
   Bleeding from platelet reasons: ITP, disseminated intravascular coagulation and other microangiopathic HA (TTP, HUS, HELLP)
   Physical examination of lungs

29. Respiratory failure and hypoventilation syndromes
   Amyloidosis (primary AL and secondary AA amyloidosis)
Secondary glomerulopathies (diabetic nephropathy, renal amyloidosis, renal impairment in connective tissue diseases)
Principles of anticoagulation therapy, anticoagulants overdose

30. Peripheral vascular diseases
   Icterus - pathogenesis and clinical classification
   Spondylarthritides (reactive arthritis, ankylosing spondylarthritis, psoriatic and enteropathic spondylarthritis)
   Diff. dg. of increased bleeding

31. Bronchiectasis (congenital and acquired)
   Chronic pancreatitis
   Rheumatic fever
   Principles of effective hemotherapy, hazards of blood transfusion

32. Community acquired pneumonia
   Cirrhosis of the liver incl. primary biliary cirrhosis
   Hypopituitarism
   Organization of transfusiology, apheresis, therapy with blood and blood products

33. Physical examination in cardiology
   Nosocomial pneumonia
   Acute complications of diabetes mellitus (diagnostics and therapy)
   Extracorporeal hemodialysis, peritoneal dialysis, continual methods, hemoperfusion, plasmapheresis

34. Lung abscess (diagnosis and treatment)
   Alcoholic hepatopathy (alcoholic steatosis, hepatitis and cirrhosis)
   Acute kidney injury
   Diff. dg. of chest pain

35. Bronchial asthma
   Tumors of the pancreas
   Febrile neutropenia and supportive care in hematology
   Non-invasive examination methods in cardiology

36. Non-infective pneumonia (pneumonitis)
   Chronic complications of diabetes mellitus
   Tumors of the thyroid gland
   Diff. dg. of ECG changes

37. Chronic obstructive pulmonary disease
   Hyperlipoproteinemias and dyslipoproteinemias (diagnostics, classification and therapy)
   Chronic tubulointerstitial nephritis and tubular disorders
   Diff. dg. of leukocytosis

38. Stable angina pectoris
   Diseases of the trachea (tracheal stenosis, tracheomalacia, tracheoesophageal fistula)
   Metabolic syndrome
   Diff. dg. of anemias
39. Pneumothorax
   Endocrine active tumors of the gastrointestinal tract
   Chronic kidney diseases and chronic renal failure
   Diff. dg. of cutaneous and mucosal manifestations of internal diseases

40. Pleural diseases (fluidothorax, empyema, tumors)
   Infectious arthritides, paraneoplastic musculoskeletal diseases, arthropathies in endocrine
diseases
   Hypophyseal hyperfunction
   Diff. dg. of lower gastrointestinal bleeding

41. Tumors and inflammatory diseases of mediastinum
   Adrenal medullary diseases
   Renal transplantation
   Diff. dg. of swallowing disorders

42. Benign bronchial and pulmonary tumors
   Primary and secondary immunodeficiency
   Adrenocortical hypofunction
   Examination methods of digestive tract

43. Aortic diseases
   Pneumonia in immunocompromised host
   Adrenocortical hyperfunction
   Examination methods of the gallbladder, the biliary tract and the pancreas

44. Tuberculosis
   Toxic and drug-induced liver damage, hemochromatosis, Wilson’s disease, porphyria
   and liver disorders in pregnancy (including HELLP syndrome)
   Non-Hodgkin’s lymphomas
   Diff. dg. of ocular changes in internal diseases

45. Sarcoidosis
   Esophageal diseases
   Urolithiasis
   Diff. dg. of elevated CRP

46. Lower respiratory tract infections (laryngitis, tracheobronchitis and bronchiolitis)
   Bleeding from the lack of plasma factors (congenital and acquired coagulopathies)
   Renal and urinary tract neoplasia
   Invasive examination methods in cardiology

47. Unstable angina pectoris
   Hypothyreosis
   Postcholecystectomy syndrome, SOD – sphincter Oddi dysfunction and the biliary tract
dysmotility
   Diff. dg. of lymph nodes enlargement (lymphadenopathies)