Program of Study : General Medicine

Course : Internal Medicine III, **A1**

Abbreviation : **IN3/VA012**

Schedule : **1st block: 14.11.-25.11.2022**

2nd block: 28.11. -9.12.2022

Course Distribution : 5 year, 9 and 10 semester,

Number of Credits : 10

Course Form : Lectures (10), seminars (50), exercises (60)

Seminars (S) and lectures (L):

Leading teacher: Prof. MUDr. P. Horák, CSc.
Teachers : Prof. MUDr. V. Ščudla,CSc.
Prof. MUDr. K. Indrák, DrSc.
Prof. MUDr. T. Papajík, CSc.
Prof. MUDr. E. Faber, CSc.
Doc. MUDr. J. Bačovský, CSc.
Prof. MUDr. D. Karásek, Ph.D
Doc. MUDr. K. Krejčí, Ph.D
Prof. MUDr. V. Procházka, Ph.D
Doc. MUDr. T. Szotkowski, Ph.D
Doc. MUDr. A. Hluší, Ph.D
Doc. MUDr. Mgr. J. Minařík, Ph.D.
Doc. MUDr. M. Halenka, Ph.D
MUDr. D. Galuszková, Ph.D
MUDr. L. Raida, Ph.D
MUDr. R. Metelka, Ph.D
MUDr. J. Vymětal, Ph.D
MUDr. L. Cibičková, Ph.D.
MUDr. K. Žamboch, Ph.D.
MUDr. J. Schovánek, Ph.D.
MUDr. M. Skácelová, Ph.D.
MUDr. J. Orság, Ph.D.
MUDr. D. Kovářová, Ph.D.
MUDr. M. Bradáčová
MUDr. R. Machová
MUDr. Z. Kosatíková
MUDr. M. Hrubý
MUDr. O. Krystyník
MUDr. D. Číhalíková
MUDr. V. Klementa
MUDr. A. Skoumalová
MUDr. J. Videman
MUDr. M. Bolacká
MUDr. R. Dohnal

Study: **Block**
1st Blocks date: 14. 11. - 25. 11.2022

Start of teaching block take place in the lecture room of the 3rd Department of Internal Medicine - Dept. 39 A (first floor) 14.11. 2022 7,45 h.

Starting of teaching block, lectures (L) and seminars (S1, S2) take place in the lecture room of the 3rd Department of Internal Medicine (3RD IC) - 21.11. – 9.12.2022 or Department of Haematooncology (DoH) - 14.11. - 18.11.2022, new building P, 3rd floor, room A_P303260

	Block Day	Subject	No. of Less.	Teacher
1	**14.11.2022** **(7.40 –8.00)** **(3RD IC)**	**Start of teaching block**		**Dr. Vymětal** (Dr. Schovánek)
	S1 **(8.00 -9.00)** **(DoH)**	**Acute leukaemias, myelodysplastic syndrome**	**1.7**	**Dr. Machová** (Doc. Szotkowski)
	S2 **(11.45-13:00)** **(DoH)**	**Hereditary and acquired haemolytic anaemias, haemoglobinopathies**	**1.3**	**Prof. Indrák** (Dr. Raida)
2	**15.11.2022** **S1** **(7.45-9.00)** **(DoH)**	**Chronic myeloid leukaemia, Ph-negative myeloproliferative disorders**	**1.7**	**Prof. Faber** (Prof. Indrák)
	S2 **(11.45-13:00)** **(DoH)**	**Diagnostics, classification and treatment of bleeding disorders**	**1.3**	**Dr. Hluší** (Dr. Bradáčová)
3	**16.11.2022** **S1** **(7.45-9.00)** **(DoH)**	**Polycythaemia vera and other polycythemias, differential diagnosis and therapy**	**1.7**	**Prof. Indrák** (Prof. Faber)
	S2 **(11.45-13:00)** **(DoH)**	**Chronic lymphoprolipherative disorders**	**1.3**	**Prof. Procházka** (Prof. Papajík)
4	**17.11.2022**	**HOLIDAY**		
5	**18.11.2022** **S1** **(7.45-9.00)** **(DoH)**	**Diagnosis and treatment of monoclonal gamapathies** **Primary (AL) and secondary**	**1.7**	**Doc. Bačovský** (Doc. Minařík)

	S2 **(11.45-13:00)** **(DoH)**	**amyloidosis**	**1.3**	**Doc. Bačovský** (MUDr. Pika)
6	**21.11.2022** **S1** **(8.00-9.15)** **L** **(11.45-13:00)**	**Examination methods in nephrology** **Acute kidney injury and contrast induced nephropathy**	**1.7** **1.3**	**Doc. Krejčí** (Dr. Žamboch) **Dr. Žamboch** (Doc. Krejčí)
7	**22.11.2022** **S1** **(8.00-9.15)** **L** **(11.45-13:00)**	**Acute and chronic tubulointersticial nephritides and tubular disorders** **Diagnosis and treatment of fluid and electrolyte disorders**	**1.7** **1.3**	**Dr. Hrubý** (Dr. Orság) **Dr. Metelka** (Dr. Vymětal)
8	**23.11.2022** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Acute and rapid progressive glomerulonephritides** **Diabetic nephropathy and vascular kidney disorders**	**1.7** **1.3**	**Dr. Klementa** (Dr. Orság) **Dr. Žamboch** (doc. Krejčí)
9	**24.11.2022** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Haemodialysis, peritoneal dialysis and other blood purification methods** **Diagnosis and treatment of fluid and acid base disorders**	**1.7** **1.3**	**Dr. Orság** (Dr. Hrubý**)** **Dr. Vymětal** (Dr. Metelka)
10	**25.11.2022** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Epidemiology, etiology and clinical picture of chronic kidney disease** **Kidney transplantation**	**1.7** **1.3**	**Dr. Orság** (Dr. Klementa) **Doc. Krejčí** (Dr. Žamboch)

2nd Block Date 28.11. -9.12.2022

	Block Day	Subject	No. of Less.	Teacher
1	**28.11.2022** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Examination methods in rheumatology** **Pharmacotherapy of rheumatic diseases** **(NSA, intraarticular therapy, glucocorticoids, sDMARDs, bDMARDs, therapy in pregnancy)**	**1.7** **1.3**	**Prof. Horák** (Dr. Skoumalová) **Prof. Horák** (Dr. Videman)

2	**29.11. 2022** **S1** **(7.45-9.00)** **S2** **(11.45-13:00)**	**Systemic lupus erythematosus, antiphospholipid syndrome, Sjögren´s syndrome** **Systemic scleroderma, idiopathic myositis, overlap syndromes**	**1.7** **1.3**	**Prof. Horák** (Dr. Skoumalová) **Prof. Horák** (Dr. Videman)
3	**30.11.2022** **S1** **(7.45-9.00)** **L** **(11.45-13:00)**	**Osteoarthritis, crystal induced arthritis, soft tissue rheumatism** **Rheumatoid arthritis and juvenile idiopathic arthritis Vasculitides**	**1.7** **1.3**	**Prof. Ščudla** (Dr. Skácelová) **Prof. Horák** (Dr. Videman)
4	**1.12.2022** **S1** **(7.45-9.00)** **S2** **(11.45-13:00)**	**Vasculitides** **Seronegative spondyloarthritis (ankylosing spondylarthritis, psoriatic arthritis, reactive arthritis), infection and arthritis**	**1.7** **1.3**	**Dr. Videman** (prof. Horák) **Prof. Horák** (Dr. Skácelová)
5	**2.12.2022** **S1** **(7.45-9.00)** **S2** **(11.45-13:00)**	**Metabolic bone diseases** **Adult onset Still disease, paraneoplastic syndromes, musculoskeletal manifestations of endocrine diseases**	**1.7** **1.3**	**Dr. Skácelová** **(**prof**.** Horák) **Dr. Skácelová** **(**prof**.** Horák)
6	**5.12.2022** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**The most important symptoms and examination methods of the endocrine diseases.** **Hyper- and hypofunction of the pituitary gland, diabetes insipidus.**	**1.7** **1.3**	**Dr. Schovánek** (Dr. Halenka) **Dr. Schovánek** (prof. Karásek)
7	**6.12.2022** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Hypothyroidism, hyperthyroidism, inflammation and tumours of the thyroid gland. Diseases of the parathyroid glands** **Diseases of the adrenal medulla and cortex**	**1.7** **1.3**	**Doc. Halenka** (Dr. Schovánek) **Prof. Karásek** (Dr. Schovánek)
8	**7.12.2022** **S1** **(8.00-9.15)**	**Classification and treatment of hyperlipidemias**	**1.7**	**Dr. Cibičková** (Dr. Kovářová)

	S2 (11.45-13:00)	**Diagnosis and classification of diabetes mellitus. Diabetes mellitus type 2 and current treatment options**	**1.3**	**Prof. Karásek** (Dr. Krystyník)
9	**8.12.2022**			
	S1 (8.00-9.15)	**Diabetes mellitus type 1 and current treatment options**	**1.7**	**Dr. Krystyník** (Dr. Bolacká)
	S2 (11.45-13.00)	**Monitoring of the efficiency of diabetes treatment, technology in diabetology and self-monitoring**	**1.3**	**Dr. Krystyník** (Dr. Bolacká)
10	**9.12.2022**			
	S1 (8.00-9.15)	**Chronic complications of diabetes. Neuropathy, angiopathy. Specific microvascular complications. Diabetic foot syndrome**	**1.7**	**Dr. Dohnal** (Dr. Krystyník)
	S2 (11.45-13.00)	**Obesity, the treatment options**	**1.3**	**Dr. Cibičková** (Dr. Schovánek)

Practical exercises (9.15-11.30):

Leading Teacher : MUDr. Jiří Vymětal, Ph.D.

1st block: 14.11.-25.11.2022

2nd block: 28.11. -9.12.2022

	Block Day	Subject	No. of Less.
1	**14.11.2022**	**Internal Medicine 39A**	**3**
2	**15.11.2022**	**Dep. of Hematooncology**	**3**
3	**16.11.2022**	**Internal Medicine 39 R-rheumatology**	**3**
4	**17.11.2022**	**~~Internal Medicine 39C-nephrology~~ HOLIDAY**	**3**
5	**18.11.2022**	**Intensive care unit**	**3**
6	**21.11.2022**	**Haemodialysis**	**3**
7	**22.11.2022**	**Dep. of Hematooncology**	**3**
8	**23.11.2022**	**Internal Medicine 39A**	**3**
9	**24.11.2022**	**Internal Medicine 39R-rheumatology**	**3**
10	**25.11.2022**	**Haemodialysis**	**3**

	Block Day	Subject	No. of Less.
1	**28.11. 2022**	**Internal Medicine 39A**	**3**
2	**29.11. 2022**	**Internal Medicine 39R-rheumatology**	**3**
3	**30.11.2022**	**Internal Medicine 39B –diabetology**	**3**
4	**1.12.2022**	**Intensive care unit**	**3**
5	**2.12.2022**	**Internal Medicine 39A**	**3**
6	**5.12.2022**	**Internal Medicine 39B- diabetology**	**3**
7	**6.12.2022**	**Internal Medicine 39R-rheumatology**	**3**

8	**7.12.2022**	**Internal Medicine 39C-nephrology**	**3**
9	**8.12.2022**	**Internal Medicine 39A**	**3**
10	**9.12.2022**	**Intensive care unit**	**3**

The content of the practical exercise is the elaboration of a complete medical record, including anamnesis, design of a diagnostic and treatment plan. The practice also includes a written description of the EKG curve or X-ray image.
The practical exercise is divided into an individual part devoted to the processing of the above documents and a part devoted to the analysis of patients with the teacher and associated with the control of findings presented by the student. Participation in the practical exercise is recognized only on the basis of meeting the above prerequisites and an active approach in the analysis of the patient. Within the practical exercise, it is possible to use professional literature - but not to make an extract from the official medical record.
The condition for granting the credit is active completion of a given number of practical exercises in a given block.
Missing practice can be completed in justified cases (illness, exam) after agreement with the teaching doctor during a further block in due time. Part of each practical exercise is a check of the findings as well as a check of the student's skills and knowledge.
During the practical part of the exam, the student's ability to take the anamnesis, perform a physical examination of the patient in full, as well as the elaboration of a medical record, a working diagnostic conclusion and a plan of examination and treatment procedure is verified. Part of the test is also the evaluation of the description of the ECG curve and the image taken by conventional radiological techniques, or some other imaging method (CT, MRI).
Clinical scenario simulators in Cent Centessimo are also used to verify practical skills.

Absence from the lessons the has to be apologized to the tutor (MUDr. J. Vymětal, Ph.D.) or secretary by an e-mail (jiri.vymetal@fnol.cz, marcela.janu@fnol.cz), phone (588445896, 588443384) or personally. From the four weeks block one day of absence is tolerated in the case of serious personal matter, two days of absence are tolerated in the case of illness. Longer absence has to be substituted upon an appointment with the tutor (vice tutor). The substitution can be accomplished within another block (preferred option) or at the end of the term and can contain the work at the department as well as the elaboration of the seminar. It´s strongly recommended to resolve the longer and expected absence as soon as possible.

Completed by : Credit, Exam

Requirements : Active attendance at exercises and seminars

Literature :

1. Goldmann L., Schafer A.I., Goldman-Cecil Medicine, volume 2. Elsevier, 2020. ISBN 978-0-323-76019-5;
2. Číhalík Č. EKG v klinické praxi. Solen Praha, 2013.
3. Chrobák, L., Gral, T., Kvasnička, J. Physical Examination Internal Medicine. Grada Publishing Praha, Czech Republic, 2003. ISBN 80-247-0617-2
4. Jameson J.L., Fauci A. S., Kasper D. L., et al. Harrison´s principles of internal medicine. 20th Edition, volume 1,2. McGraw Hill Education, 2018, ISBN 978-1-259-64403-0
5. Andreoli, Thomas E., Cecil, Russell L. Cecil Essentials of Medicine. Philadelphia, PA : Saunders/Elsevier, 2016. ISBN

9781416061090

Alternative sources:

6. Kaspers DE et al. or Jameson L. et al. Harrison´s Principles of Internal Medicine 19/E or 20/Ed, MC Craw-Hill, 19th or 20th Edition. New York, 2015
7. Raftery, A.T. et al. Churchill´s pocketbook of differential diagnosis. 2014
8. Kinirons M. et al. French´s Index of Differential diagnosis CRC Press. 2016
9. Ralston S. et al. Davidson´s Principles and practice of medicine, 23th edition. Elsevier, 2018
10. 'Kumar P., Clark M. Kumar and Clark s Clinical Medicine. Elsevier Books, 2016
11. Wilkonson IB. Oxford handbook of clinical medicine. Oxford university press, 2017
12. 'Fauci, A.S. et al. Harrison´s Principles of Internal Medicine. MC Craw-Hill, New York, 2012.

Program of Study	**:**	General Medicine
Course	**:**	Internal Medicine III, **A3**
Abbreviation	**:**	**IN3/VA012**
Schedule	**:**	**1st block: 27.2. - 10.3. 2023**
		2nd block: 13.3. – 24.3.2023
Course Distribution	**:**	5 year, 9 and 10 semester,
Number of Credits	**:**	10
Course Form	**:**	Lectures, seminars, exercises

Seminars (S) and lectures (L):

Leading teacher: Prof. MUDr. P. Horák, CSc.

Teachers :
Prof. MUDr. V. Ščudla,CSc.
Prof. MUDr. K. Indrák, DrSc.
Prof. MUDr. T. Papajík, CSc.
Prof. MUDr. E. Faber, CSc.
Doc. MUDr. J. Bačovský, CSc
Prof. MUDr. D. Karásek, Ph.D
Doc. MUDr. K. Krejčí, Ph.D
Prof. MUDr. V. Procházka, Ph.D
Doc. MUDr. T. Szotkowski, Ph.D
Doc. MUDr. A. Hluší, Ph.D
Doc. MUDr. M. Halenka, Ph.D
MUDr. D. Galuszková, Ph.D
MUDr. L. Raida, Ph.D
MUDr. R. Metelka, Ph.D
MUDr. J. Vymětal, Ph.D
MUDr. L. Cibičková, Ph.D.
MUDr. K. Žamboch, Ph.D.
MUDr. J. Schovánek, Ph.D.
MUDr. M. Skácelová, Ph.D.
MUDr. J. Orság, Ph.D.
MUDr. D. Kovářová, Ph.D.
MUDr. M. Bradáčová
MUDr. R. Machová
MUDr. D. Mačáková
MUDr. Z. Kosatíková
MUDr. M. Hrubý
MUDr. O. Krystyník
MUDr. D. Číhalíková
MUDr. V. Klementa
MUDr. A. Skoumalová
MUDr. J. Videman
MUDr. M. Bolacká
MUDr. R. Dohnal

Study: Block

1st Blocks date: 27.2. - 10.3. 2023

Start of teaching block take place in the lecture room of the 3rd Department of Internal Medicine - Dept. 39 A (first floor) 27.2.2023 7,45 h.

Starting of teaching block, lectures (L) and seminars (S1, S2) take place in the lecture room of the 3rd Department of Internal Medicine (3RD IC) – 6. 3. 2023 – 24. 3. 2022 or Department of Haematooncology (DoH) – 27. 2. 2023 – 3. 3. 2023, new building P, 3rd floor, room A_P303260

	Block Day	Subject	No. of Less.	Teacher
1	**27.2.2023** **7.40 –8.00** **(3RD IC)**	**Start of teaching block**		**Dr. Vymětal** (Dr. Schovánek)
	S1 **(8.00 -9.00)** **(DoH)**	**Acute leukaemias, myelodysplastic syndrome**	**1.7**	**Dr. Machová** (Doc. Szotkowski)
	S2 **(11.45-13:00)** **(DoH)**	**Hereditary and acquired haemolytic anaemias, haemoglobinopathies**	**1.3**	**Prof. Indrák** (Dr. Raida)
2	**28.2.2023** **S1** **(8.00-9.15)** **(DoH)**	**Chronic myeloid leukaemia, Ph-negative myeloproliferative disorders**	**1.7**	**Prof. Faber** (Prof. Indrák)
	S2 **(11.45-13.00)** **(DoH)**	**Diagnostics, classification and treatment of bleeding disorders**	**1.3**	**Dr. Hluší** (Dr. Palová)
3	**1.3.2023** **S1** **(8.00-9.15)** **(DoH)**	**Thrombophilic disorders**	**1.7**	**Dr. Bradáčová** (Dr. Hluší)
	L **(11.45-13.00)** **(DoH)**	**Malignant lymphomas**	**1.3**	**Prof. Procházka** (Prof. Papajík)
4	**2.3.2023** **S1** **(8.00-9.15)** **(DoH)**	**Polycythaemia vera and other polycythemias, differential diagnosis and therapy**	**1.7**	**Prof. Indrák** (Prof. Faber)
	S2 **(11.45-13:00)** **(DoH)**	**Chronic lymphoprolipherative disorders**	**1.3**	**Prof. Procházka** (Prof. Papajík)

5	**3.3.2023** **S1** **(8.00-9.15)** **(DoH)** **S2** **(11.45-13:00)** **(DoH)**	**Diagnosis and treatment of monoclonal gamapathies** **Primary (AL) and secondary amyloidosis**	**1.7** **1.3**	**Doc. Bačovský** (Prof. Ščudla) **Doc. Bačovský** (Prof. Ščudla)
6	**6.3.2023** **S1** **(8.00-9.15)** **L** **(11.45-13:00)**	**Examination methods in nephrology** **Acute kidney injury and contrast induced nephropathy**	**1.7** **1.3**	**Doc. Krejčí** (Dr..Žamboch) **Dr. Žamboch** (Doc. Krejčí)
7	**7.3.2023** **S1** **(8.00-9.15)** **L** **(11.45-13:00)**	**Acute and chronic tubulointersticial nephritides and tubular disorders** **Diagnosis and treatment of fluid and electrolyte disorders**	**1.7** **1.3**	**Dr. Hrubý** (Dr. Orság) **Dr. Metelka** (Dr. Vymětal)
8	**8.3.2023** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Acute and rapid progressive glomerulonephritides** **Diabetic nephropathy and vascular kidney disorders**	**1.7** **1.3**	**Dr. Klementa** (Dr. Orság) **Dr. Žamboch** (doc. Krejčí)
9	**9.3.2023** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Haemodialysis, peritoneal dialysis and other blood purification methods** **Diagnosis and treatment of fluid and acid base disorders**	**1.7** **1.3**	**Dr. Orság** (Dr. Hrubý**)** **Dr. Vymětal** (Dr. Metelka)
10	**10.3.2023** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Epidemiology, etiology and clinical picture of chronic kidney disease** **Kidney transplantation**	**1.7** **1.3**	**Dr. Orság** (Dr. Klementa) **Doc. Krejčí** (Dr. Žamboch)

2nd Block Date 13.3. – 24.3.2023

	Block Day	Subject	No. of Less.	Teacher
1	**13.3.2023** **S1**	**Examination methods in**	**1.7**	**Prof. Horák**

	(8.00-9.15) **S2** **(11.45-13:00)**	**rheumatology** **Pharmacotherapy of rheumatic diseases** **(NSA, intraarticular therapy, glucocorticoids, sDMARDs, bDMARDs, therapy in pregnancy)**	**1.3**	(Dr. Skoumalová) **Prof. Horák** (Dr. Videman)
2	**14.3.2023** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Systemic lupus erythematosus, antiphospholipid syndrom, Sjögren´s syndrome** **Systemic scleroderma, idiopathic myositis, overlap syndromes**	**1.7** **1.3**	**Prof. Horák** (Dr. Skoumalová) **Prof. Horák** (Dr. Videman)
3	**15.3.2023** **S1** **(8.00-9.15)** **L** **(11.45-13:00)**	**Osteoarthritis, crystal induced arthritis, soft tissue rheumatism** **Rheumatoid arthritis and juvenile idiopathic arthritis**	**1.7** **1.3**	**Prof. Ščudla** (Dr. Skácelová) **Prof. Horák** (Dr. Videman)
4	**16.3.2023** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Vasculitides** **Seronegative spondyloarthritis (ankylosing spondylarthritis, psoriatic arthritis, reactive arthritis), infection and arthritis**	**1.7** **1.3**	**Dr. Videman** (Prof. Horák) **Prof. Horák** (Dr. Skácelová)
5	**17.3.2023** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Metabolic bone diseases** **Adult onset Still disease, paraneoplastic syndromes, musculoskeletal manifestations of endocrine diseases**	**1.7** **1.3**	**Dr. Skácelová** (prof. Horák) **Dr. Skácelová** (prof. Horák)
6	**20.3.2023** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**The most important symptoms and examination methods of the endocrine diseases** **Hyper- and hypofunction of the pituitary gland, diabetes insipidus.**	**1.7** **1.3**	**Dr. Schovánek** (Doc. Halenka) **Dr. Schovánek** (Prof. Karásek)
7	**21.3.2023** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Hypothyroidism, hyperthyroidism, inflammation and tumors of the thyroid gland. Diseases of the parathyroid glands** **Diseases of the adrenal medulla and cortex**	**1.7** **1.3**	**Doc. Halenka** (Dr. Schovánek) **Prof. Karásek** (Dr. Schovánek)

8	**22.3.2023** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Classification and treatment of hyperlipidemias** **Diagnosis and classification of diabetes mellitus. Diabetes mellitus type 2 and current treatment options**	**1.7** **1.3**	**Dr. Cibičková** (Dr. Kovářová) **Prof. Karásek** (Dr. Krystyník)
9	**23.3.2023** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Diabetes mellitus type 1 and current treatment options** **Monitoring of the efficiency of diabetes treatment, technology in diabetology and self-monitoring**	**1.7** **1.3**	**Dr. Krystyník** (Dr. Bolacká) **Dr. Krystyník** (Dr. Bolacká)
10	**24.3.2023** **S1** **(8.00-9.15)** **S2** **(11.45-13:00)**	**Chronic complications of diabetes. Neuropathy, angiopathy. Specific microvascular complications. Diabetic foot syndrome.** **Obesity, the treatment options.**	**1.7** **1.3**	**Dr. Dohnal** (Dr. Krystyník) **Dr. Cibičková** (Dr. Schovánek)

Practical exercises (9.15-11.30):

Leading Teacher : **MUDr. Jiří Vymětal, Ph.D.**

Study : Block

Block Date: 27.2. – 10.3. 2023 and 13.3. – 24.3. 2023

	Block Day	subject	No. of Less.
1	**27.2.2023**	**Internal Medicine 39A**	**3**
2	**28.2.**	**Department of Hematooncology**	**3**
3	**1.3.**	**Dep. of Hematooncology**	**3**
4	**2.3.**	**Internal Medicine 39B-nephrology**	**3**
5	**3.3.**	**Intensive care unit**	**3**
6	**6.3.**	**Internal Medicine 39A**	**3**
7	**7.3.**	**Department of Hematooncology**	**3**
8	**8.3.**	**Internal Medicine 39A**	**3**
9	**9.3.**	**Internal Medicine 39A-rheumatology**	**3**
10	**10.3.**	**Haemodialysis**	**3**

	Block Day	Subject	No. of Less.
1	**13.3.2023**	**Internal Medicine 39A**	**3**

2	**14.3.**	**Internal Medicine 39A-rheumatology**	**3**
3	**15.3.**	**Internal Medicine 39B-diabetology**	**3**
4	**16.3.**	**Intensive care unit**	**3**
5	**17.3.**	**Internal Medicine 39A**	**3**
6	**20.3.**	**Internal Medicine 39B-diabetology**	**3**
7	**21.3.**	**Internal Medicine 39A-rheumatology**	**3**
8	**22.3.**	**Internal Medicine 39B -nephrology**	**3**
9	**23.3.**	**Internal Medicine 39A**	**3**
10	**24.3.**	**Intensive care unit**	**3**

The content of the practical exercise is the elaboration of a complete medical record, including anamnesis, design of a diagnostic and treatment plan. The practice also includes a written description of the EKG curve or X-ray image.
The practical exercise is divided into an individual part devoted to the processing of the above documents and a part devoted to the analysis of patients with the teacher and associated with the control of findings presented by the student. Participation in the practical exercise is recognized only on the basis of meeting the above prerequisites and an active approach in the analysis of the patient. Within the practical exercise, it is possible to use professional literature - but not to make an extract from the official medical record.
The condition for granting the credit is active completion of a given number of practical exercises in a given block.
Missing practice can be completed in justified cases (illness, exam) after agreement with the teaching doctor during a further block in due time. Part of each practical exercise is a check of the findings as well as a check of the student's skills and knowledge.
During the practical part of the exam, the student's ability to take the anamnesis, perform a physical examination of the patient in full, as well as the elaboration of a medical record, a working diagnostic conclusion and a plan of examination and treatment procedure is verified. Part of the test is also the evaluation of the description of the ECG curve and the image taken by conventional radiological techniques, or some other imaging method (CT, MRI).
Clinical scenario simulators in Cent Centessimo are also used to verify practical skills.

Absence from the lessons the has to be apologized to the tutor (MUDr. J. Vymětal, Ph.D.) or secretary by an e-mail (jiri.vymetal@fnol.cz, marcela.janu@fnol.cz), phone (588445896, 588443384) or personally. From the four weeks block one day of absence is tolerated in the case of serious personal matter, two days of absence are tolerated in the case of illness. Longer absence has to be substituted upon an appointment with the tutor (vice tutor). The substitution can be accomplished within another block (preferred option) or at the end of the term and can contain the work at the department as well as the elaboration of the seminar. It´s strongly recommended to resolve the longer and expected absence as soon as possible.

Completed by : Credit, Exam

Requirements : Active attendance at exercises and seminars

Literature :

1. Goldmann L., Schafer A.I., Goldman-Cecil Medicine, volume 2. Elsevier, 2020. ISBN 978-0-323-76019-5;
2. Číhalík Č. EKG v klinické praxi. Solen Praha, 2013.
3. Chrobák, L., Gral, T., Kvasnička, J. Physical Examination

Internal Medicine. Grada Publishing Praha, Czech Republic, 2003. ISBN 80-247-0617-2
4. Jameson J.L., Fauci A. S., Kasper D. L., et al. Harrison´s principles of internal medicine. 20th Edition, volume 1,2. McGraw Hill Education, 2018, ISBN 978-1-259-64403-0
5. Andreoli, Thomas E., Cecil, Russell L. Cecil Essentials of Medicine. Philadelphia, PA : Saunders/Elsevier, 2016. ISBN 9781416061090

Alternative sources:

6. Kaspers DE et al. or Jameson L. et al. Harrison´s Principles of Internal Medicine 19/E or 20/Ed, MC Craw-Hill, 19th or 20th Edition. New York, 2015
7. Raftery, A.T. et al. Churchill´s pocketbook of differential diagnosis. 2014
8. Kinirons M. et al. French´s Index of Differential diagnosis CRC Press. 2016
9. Ralston S. et al. Davidson´s Principles and practice of medicine, 23th edition. Elsevier, 2018
10. 'Kumar P., Clark M. Kumar and Clark s Clinical Medicine. Elsevier Books, 2016
11. Wilkonson IB. Oxford handbook of clinical medicine. Oxford university press, 2017
12. 'Fauci, A.S. et al. Harrison´s Principles of Internal Medicine. MC Craw-Hill, New York, 2012.

The Outline of the Exam Requirements in Internal Medicine After the IXth Term For English-Speaking Students in the Academic Year 2022/2023

I. Cardiology

1. Non-invasive examination methods in cardiology
2. Invasive examination methods in cardiology
3. Circulatory arrest and cardiopulmonary resuscitation
4. Cardiogenic shock
5. Sick sinus syndrome; irritable carotid syndrome
6. Atrioventricular blocks
7. Supraventricular tachycardia (excluding atrial fibrillation and flutter, atrial tachycardia)
8. Atrial fibrillation and flutter, atrial tachycardia
9. Ventricular arrhythmias
10. Essential hypertension
11. Secondary hypertension
12. Physical examination in cardiology
13. Atherosclerosis and its risk factors
14. Ischemic heart disease (etiology, pathogenesis, classification)
15. Chronic heart failure
16. Stable angina pectoris
17. Unstable angina pectoris
18. Acute heart failure
19. Acute myocardial infarction and its complications

20. Therapy of myocardial infarction
21. Congenital heart diseases in adults
22. Mitral stenosis and mitral insufficiency
23. Aortic stenosis and aortic regurgitation
24. Endocarditis
25. Myocarditis
26. Cardiac pacing, implantable defibrillators
27. Cardiomyopathies
28. Pericarditis
29. Diseases of aorta
30. Pulmonary embolism and thromboembolic disease
31. Pulmonary hypertension (primary, secondary, chronic cor pulmonale, chronicum)
32. Diseases of the venous system
33. Atherosclerotic peripheral arterial disease
34. Syncope

II. Pneumology

35. Bronchological methods and interventional pneumology, imaging methods in pneumology
36. Idiopathic interstitial pneumonia; Hypersensitivity pneumonia; Systemicconnective tissue disorders with lung involvement
37. Opportunistic lung infections in immune-compromised patients
38. Alveolar haemorrhage and rare infiltrative diseases; Eosinophilic lung disease; Lymphangioleiomyomatosis; Drug-induced lung involvement
39. Tuberculosis; Non-tuberculous mycobacteriosis
40. Chronic obstructive pulmonary disease
41. Bronchial asthma
42. Respiratory insufficiency, classification, diagnosis, therapy
43. Viral lung infections; Bacterial pneumonia and lung abscess; Ventilator-associated pneumonia
44. Influenza, COVID-1 infection
45. Sarcoidosis
46. Biological treatment in pneumology
47. Bronchiectasis, cystic fibrosis
48. Pneumothorax - diagnosis and therapy
49. Occupational lung diseases, environmental and external factors of lung disease
50. Malignant tumors of the lungs and bronchi
51. Diseases of the pleura and mediastinum - effusion; chylothorax, hemothorax, fibrothorax,
52. Pleural and mediastinal diseases - Pleural tumors; Mediastinal tumors and cysts; Pneumomediastinum and mediastinitis
53. Tobacco smoking, risks, therapy, prevention
54. Sleep-related breathing disorders
55. Therapy of respiratory failure
56. Inflammation of the lower respiratory tract (laryngitis, tracheitis, bronchitis, bronchiolitis) and bronchiectasis
57. Lung transplantation
58. Functional tests and exercise cardiopulmonary tests in pneumology
59. Invasive and non-invasive lung ventilation

III. Gastroenterology

60. Cholecystolithiasis and choledocholithiasis, cholecystitis and cholangitis
61. Examination methods in liver diseases
62. Esophageal motility disorders, esophagus diverticulum and inflammation of the esophagus, hiatal hernias
63. Gastric dyspepsia, acute and chronic gastritis and gastropathy
64. Peptic ulcer disease of stomach and duodenum
65. Idiopathic proctocolitis, Crohn's disease and less common colitis
66. Hepatic failure (hepatic encephalopathy and hepatorenal syndrome)
67. Portal hypertension and ascites
68. Stomach tumors
69. Chronic hepatitis and hepatic granulomatous processes
70. Tumors of the colon and the rectum
71. Malabsorption syndrome
72. Irritable bowel syndrome, colon diverticulosis and megacolon
73. Acute pancreatitis
74. Tumors of the liver, gallbladder and bile ducts
75. Acute viral hepatitis (A to E types and other viral infections)
76. Pathogenesis of jaundice and its clinical types
77. Chronic pancreatitis
78. Hepatic cirrhosis, including primary biliary cirrhosis
79. Alcoholic hepatopathy (alcoholic steatosis, hepatitis and cirrhosis)
80. Tumors of the pancreas
81. Examination methods of GI tract
82. Examination methods of the gallbladder, the biliary tract and the pancreas
83. Toxic and drug-induced liver damage, hemochromatosis, Wilson’s disease, porphyria and liver disorders in pregnancy (including HELLP syndrome)
84. Esophageal diseases
85. Postcholecystectomy syndrome, – sphincter Oddi dysfunction and the biliary tract dysmotility

IV. Metabolic and nutrition disorders

86. Metabolic syndrome
87. Atherosclerosis and its risk factors
88. Malnutrition, vitamins and trace elements deficiency disorders
89. Disorders of electrolyte management and its treatment
90. Disorders of acid-base balance and hydration, their treatment
91. Malabsorption syndrome
92. Disorder of purine metabolism, gout and other arthritis-induced crystals
93. Amyloidosis (AA a AL)

V. Rheumatology and imunology

94. Rheumatoid arthritis and juvenile idiopathic arthritis
95. Spondyloarthritis (axial spondyloarthritis, psoriatic arthritis, reactive arthritis, enteropathic spondyloarthritis)
96. Rheumatic fever

97. Systemic lupus erythematosus and antiphospholipid syndrome
98. Systemic scleroderma and Sjögren's syndrome
99. Idiopathic myositis (dermatomyositis, polymyositis)
100. Small vessel vasculitis
101. Large vessels vasculitis
102. Soft tissue rheumatism
103. Infectious arthritis
104. Metabolic bone diseases
105. Primary and secondary immunodeficiency
106. Examination methods in rheumatology

VI. Heamatology

107. Anemia of chronic diseases
108. Myelodysplastic syndrome
109. Iron deficiency anemia
110. Anemia from lack of vitamin B12 and folic acid
111. Examination methods in hematology
112. Hemolytic anemia (hereditary and acquired hemolytic anemia)
113. Acute leukemia
114. Chronic myeloid leukemia
115. Hodgkin’s lymphoma
116. Ph-negative chronic myeloproliferative diseases
117. Chronic lymphocytic leukemia and hairy cell leukemia
118. Thrombophilias (congenital and acquired)
119. Multiple myeloma and monoclonal gammopathy of unclear significance
120. Bleeding from platelet reasons, microangiopathic syndromes
121. Anticoagulant therapy - basic principles, preparation for surgical procedures in patients on anticoagulant therapies
122. Principles of effective hemotherapy, risks of transfusion therapy
123. Transfusion of blood and blood products, post-transfusion reactions
124. Febrile neutropenia, sepsis and septic shock in haemato-oncology patients
125. Non-Hodgkin’s lymphomas
126. Bleeding from the lack of plasma factors (congenital and acquired coagulopathies)

VII. Nephrology

127. Hereditary kidney diseases (polycystic disease of autosomal dominant type, type IV collagen diseases, renal tubular acidosis)
128. Examination methods in nephrology
129. Acute glomerulonephritis and rapidly progressive glomerulonephritis
130. Kidneys and hypertension, vascular diseases of the kidneys
131. Urinary tract infections and acute interstitial nephritis (acute pyelonephritis)
132. Nephrotic syndrome
133. Chronic glomerulonephritis
134. Secondary glomerulopathy (diabetic nephropathy, renal amyloidosis, renal involvement in systemic connective tissue diseases)
135. Extracorporal hemodialysis, peritoneal dialysis, continual methods, hemoperfusion, plasmapheresis

136. Acute kidney injury
137. Chronic tubulointerstitial nephritis and tubular disorders
138. Chronic kidney diseases and chronic renal failure
139. Renal transplantation
140. Urolithiasis
141. Renal and urinary tract neoplasia

VIII. Endocrinology and diabetology

142. Diabetes mellitus (pathophysiology, diagnostics and classification)
143. Therapy of diabetes mellitus
144. Acute complications of diabetes mellitus (diagnostics and therapy)
145. Chronic complications of diabetes mellitus
146. Hyperthyreosis
147. Hypothyreosis
148. Goiter and inflammation of the thyroid gland
149. Tumors of the thyroid gland
150. Parathyroid diseases
151. Hypopituitarism
152. Hypophyseal hyperfunction
153. Diabetes insipidus
154. Adrenal medullary diseases
155. Adrenocortical hypofunction
156. Adrenocortical hyperfunction
157. Endocrine active tumors of the gastrointestinal tract
158. Examination methods in endocrinology