Health Ministry of the Russian Federation
Governmental budget-funded educational institution of higher professional education
THE FIRST MOSCOW STATE MEDICAL UNIVERSITY NAMED AFTER SECHENOV

Seen and approved by
Rector _____ P.V. Glybochko

STEERING DOCUMENT OF PRACTICAL TRAINING
FIELD (CLINICAL) PRACTICAL TRAINING (Optional part)
General medical practical training (family medicine)
(practical training name)

basic professional curriculum of higher education - residency program
31.00.00 Clinical medicine
code and name of the enlarged group of specialties (training areas)
31.08.54 General medical practical training (family medicine)
code and name of study (specialty)

Practical training credit value: 10 credit units

1. Purpose and objectives of the practical training

The **purpose** is the formation and development of the following generic and professional competences by students following the basic professional curriculum of higher education, i.e. the program of residency majoring in 31.08.54 General medical practice (family medicine):

PC-1 - readiness to implement a set of measures aimed at preservation and promotion of health and including the formation of a healthy lifestyle, prevention of occurrence and (or) distribution of diseases, their early diagnostics, identification of the causes and conditions of their emergence and development, as well as elimination of the harmful effect of environmental factors on health

PC-5 - readiness to determine the patients' pathological conditions, symptoms, syndromes, diseases, and nosological forms in accordance with the International Statistical Classification of Diseases and Health-Related Issues;

PC-6 - readiness to monitor and treat the patients in need of medical assistance in the framework of a general practice.

Practical training **tasks** - formation of a body of knowledge, capabilities and skills. After the practical training, the students must:

Know:

- the legislation of the Russian Federation on the protection of public health and organization of the primary health care to the population in the framework of a general practice (family medicine);

- general issues of organization of primary health care; organization of aid to adults and children in the general practice, emergency and first aid;

- etiology and pathogenesis of certain most common diseases and syndromes, their manifestations and mechanisms of development, methods of rational diagnostics, effective treatment and prevention;

- clinical symptoms and pathogenesis of the major diseases in adults and children, their prevention, diagnostics, treatment, aid, clinical symptoms and borderline conditions at the clinic;

- theoretical bases of constructing the diagnosis, preventive and curative measures for human diseases;

- fundamentals of pharmacotherapy, pharmacokinetics and pharmacodynamics of the main groups of drugs used for provision of multi-disciplinary care for adults and children; complications and side effects caused by use of drugs, methods of their correction;

- fundamentals of non-pharmacological therapy, physiotherapy, physical therapy and medical monitoring, indications and contraindications for sanatorium treatment.

- organization of services and equipment of the general medical practice; interaction with specialists of the polyclinics and hospitals;

- typical registration and reporting medical records in medical institutions in emergency situations;

- general issues of organizing the emergency care of adults and children in the general practice;

Be able to:

- obtain information about the disease from a patient, its relatives and legal representatives;

- identify the need for special methods of research (laboratory, radiation, functional, medical and genetic), organize their performance and be able to interpret their results;

- conduct the differential diagnosis;

- assess the cause and severity of the patient's condition and take the required steps to remove the patient from this condition;

- determine the scope and sequence of therapeutic and/or surgical and organizational measures (hospitalization, outpatient care, consulting visit);

- justify the pattern, plan and tactics of the patient management, indications and contraindications to medications and surgical treatment;

- develop a plan to prepare the patient for treatment, identify the somatic contraindications;

- address the issue of the possibility of continuing the professional activity of the patient, arrangement of the proper medical documentation;

- work with special medical registries;

- use the information technology to solve the problems in his/her professional activities;

- build social interaction with members of the diagnostic and treatment process by taking into account the ethnic and cultural, religious and existential values;

Develop the skills of:

Determiningblood group and Rh factor using an express method

Determining individual and biological compatibility of blood

Determining blood suitability for transfusion

Blood transfusion

Catheterizing bladder with a soft elastic catheter

Finger examination of the prostate

Laboratory diagnostics:

Carrying out glucometry using the express method

Interpreting the general and biochemical analysis of blood and urine

Preparing smears and material for cytological and bacteriological research

Determinaing urinary protein, sugar and acetone using the rapid methods

Organizing the diagnostic and treatment process and implementation of preventive measures in the outpatient setting and at home during provision of the primary health care

Organizing the patient's road map: a set of diagnostic, therapeutic and rehabilitation events, counseling by specialists, hospitalization

Promoting medical knowledge and skills, healthy lifestyles

Cooperating with social security authorities and charity services for organization of assistance to vulnerable patients

Temporary disability examination

2. **Place of the practical training in the structure of the University OPOP VO**

The field (clinical) practical training "General practical training (family medicine)" ("urinary tract diseases", "endocrinology", "hematology") is an optional part of the residency program.

2.1. The practice requires the knowledge, capabilities and skills formed by the previous courses and practices:

Propaedeutics

Knowledge of:

- the methods of an interview and clinical examination of the patient's body;

- main symptoms and syndromes.

Capabilities:

- to assess the mental and physical condition of the patient, and functional capacity of the body systems;

- to highlight the leading symptoms and syndromes, to determine the plan of laboratory and instrumental examination and treatment.

Skills:

- history collection; determination of the state of consciousness, physical status, functional ability of the body systems; preparation of a survey and treatment program.

Therapy

Knowledge of:

- etiology and pathogenesis, clinical picture, complications and prognosis of internal diseases;

- basic principles of diagnostics, treatment and prevention.

Capabilities:

- to carry out early diagnostics by the clinical symptoms and syndromes, differential diagnostics, treatment, and prevention of internal diseases.

Skills:

- fundamentals of diagnostics, prevention and treatment of internal diseases.

Medical psychology

Knowledge of:

- fundamentals of medical psychology, medical deontology and ethics.

Capabilities:

- to apply the basic principles and methods of medical psychology and ethics during provision of the primary medical aid.

Skills:

- of using the theoretical knowledge during a training game.

Pediatrics

Knowledge of:

- anatomical, physiological and psychological characteristics of children in different age groups;

- etiology, pathogenesis, clinical picture and principles of treatment of the most common diseases in children.

Capabilities:

- to assess the state of health of a child;

- to diagnose common diseases of children.

Skills:

- fundamentals of diagnostics, prevention and treatment of children's diseases.

2.2. It is necessary to undergo the practical training to acquire the knowledge, capaabilities and skills formed by the subsequent disciplines and practices:

OPTIONAL PART

Practical training of "Urinary tract diseases"

Knowledge of:

- Diagnostic criteria, risk factors of development and progression, chronic kidney disease stage;

- main nephrological symptoms and syndromes.

- etiology and pathogenesis of the most common urinary tract infections; particularities of manifestations of the clinical picture of common diseases of the urinary tract in children, adolescents, and elderly persons;

- modern approaches to prevention and treatment of nephropathy; indications for specialist's consultations (urologist, nephrologist).

Capabilities:

- clinical examination and evaluation of urinary system in the outpatient setting and at home;

- determination of the stage of chronic kidney disease (glomerular filtration rate - GFR - calculation);

- early diagnostics by the clinical and laboratory symptoms and syndromes; preparation of examination plan on an outpatient basis;

carrying out medical-, diagnostic, preventive and rehabilitation measures in the general practice.

Skills:

- clinical examination of children, adults, and elders with urinary tract diseases in the outpatient setting and at home;

- determination of indications for counseling by specialists and hospitalization;

- organization of therapeutic and diagnostic process and implementation of preventive measures in the outpatient setting and at home during the provision of the primary health care services to the extent stipulated by the qualifying characteristic of the GP/FM.

Practical training of "Hematology"

Knowledge of:

- etiology, pathogenesis, clinical manifestations, diagnostics, differential diagnostics, general principles of treatment, prevention, classification of hematological malignancies, including the acute and chronic leukaemias;

- paraproteinemic leukemia;

- anemias, including the iron deficiency anemias, vitamin B12 and folic acid deficiency anemias, hemolytic anemias;

- hemorrhagic diathesis and thrombophilic conditions;

- depression of hematopoiesis; lymphoproliferative diseases, including the Hodgkin's disease, lymphosarcoma;

- outpatient treatment and medical checkup of hematological patients.

Capabilities:

- clinical examination of a patient with blood or blood-forming organs' disorders, interpretation of the results of the clinical blood tests;

- parameters of coagulogram. hemostasiogram, thromboelastogram, functional platelet activity, results of study of genetic polymorphisms - hereditary thrombophilias;

- early diagnostics by the clinical and laboratory symptoms and syndromes; preparation of examination plan on an outpatient basis;

- conducting of the medical-diagnostic, preventive and rehabilitation measures in the general practice.

Skills:

- clinical examination of children, adults, and elders with diseases of blood and blood-forming organs in the outpatient setting and at home;

- determination of indications for counseling by specialists;

- organization of therapeutic and diagnostic process and implementation of preventive measures in the outpatient setting and at home during the provision of the primary health care services to the extent stipulated by the qualifying characteristic of the GP/FM.

Practical training of "Endocrinology"

Knowledge of:

- etiology, pathogenesis, clinical manifestations, diagnostics, differential diagnostics, general principles of treatment, prevention, classification of diabetes melitus, including the diabetic angiopathies, diabetic coma;

- diseases of the thyroid gland, including the diffuse toxic goiter, hypothyroidism and myxedema;

- obesity; diseases of the hypothalamus-pituitary-adrenal system, including the Cushing's disease, acromegaly, hormone-active tumors of the adrenal cortex: corticosteroma, aldosteronoma, pheochromocytoma, adrenal hypofunction.

Capabilities:

- clinical examination of the patient with metabolic disorders and diseases of the endocrine system, interpretation of the blood test findings;

- ultrasonography findings. Early diagnostics by clinical and laboratory symptoms and syndromes; preparation of examination plan on an outpatient basis;

- conducting of the medical-diagnostic, preventive and rehabilitation measures in the

general practice.

Skills:

- clinical examination of children, adults, and elders with metabolic disorders and endocrine diseases in the outpatient setting and at home;

- determination of indications for counseling by specialists and hospitalization;

- organization of therapeutic and diagnostic process and implementation of preventive measures in the outpatient setting and at home during the provision of the primary health care services to the extent stipulated by the qualifying characteristic of the GP/FM.

2.3. _____ The practice is carried in a dispersed manner according to the schedule

No	Practice name	Form of control	Credit units	Weeks	semester			
					1	2	3	4
2B	Optional part		10	10				
1	Practical training of "Urinary tract diseases"	Situational tasks Test questions	5	5	2.5	2.5		
2	Practical training of "Endocrinology" / Practical training of "Hematology"	Situational tasks Test questions	5	5			2.5	2.5

3. Requirements for practical training results.

The field (clinical) practical training is aimed at developing the following professional (PC) competencies by students:

No	Competence code	Content of the competence (or a part thereof)	As a result of the practice, the students must:		
			Be able to	Possess	Evaluation tools*
	PC1	Readiness to implement a set of measures aimed at preservation and promotion of health and including the formation of a healthy lifestyle, prevention of occurrence and (or) distribution of diseases, their early diagnostics, identification of the causes and conditions of their emergence and development, as well as elimination of the harmful effect of environmental factors on health	- know the current regulations on organization of health care for the population in the aftermath of emergencies, and to apply them in certain practical situations. - organize the provision of the primary medical care to victims in the centers of emergencies	- promotion of medical knowledgeability, a healthy lifestyle - cooperation with the social security authorities and charity services for organization of assistance to vulnerable patients	- Situational tasks - test questions - Abstracts
	PC5	Readiness to determine the patients' pathological conditions, symptoms, syndromes, diseases, and nosological forms in accordance with the International Statistical Classification of Diseases and Health-Related Issues (IDC)	- to obtain information about the patient's disease. - to conduct differential diagnosis; - to identify the need for special methods of research, to organize their performance and	- medical examination in an outpatient setting (ophthalmoscopy, finger rectal and prostate examination,	- monitoring of the intern's work in real or simulated conditions - Case histories - Outpatient cards - SItuational tasks - Test questions - Abstracts

			to be able to interpret their results;	rapid glucometry, interpretation of the general and biochemical analysis of blood and urine tests, hormone and blood glucose profile, hemogram, preparation of smears of material for cytological, bacteriological research, determination of urine protein, sugar and acetone by rapid method)	
	PC6	Readiness to monitor and treat the patients in need of medical assistance in the framework of a general practice (family medicine)	- to jsubstantiate the pattern, plan and tactics of the patient management, indications and contraindications to medications and surgical treatment; - to define the scope and sequence of the therapeutic and/or surgical and organizational measures.	- methods (drug and non-drug) of treating the patients with common diseases in different age groups. - Follow-up of patients in the outpatient setting. - organization of the patient's roadmap: a set of diagnostic, therapeutic and rehabilitation events, counseling by specialists, hospitalization. Catheterization of the bladder with a soft elastic catheter	- monitoring of the intern's work in real or simulated conditions - Case histories - Outpatient cards - Situational tasks - Test questions - Abstracts

**the minimum number of successfully completed actions (manipulations, procedures, etc.) confirming the acquisition/possession of skills*

4. Evaluation tools to monitor the practice results.

4.1. Diary (report) on the practical training.

4.2. Feedback from the site of practical training (individual and/or generalized)

4.3. The list of types of evaluation tools for practice certification:

1. Situational tasks. 2. Test questions 3. Abstracts

4. Monitoring of an intern's work in real or simulated conditions

4.4. Examples of evaluation tools.

4.4.1. Diary (report) on the clinical practical training

The diary shall contain the data about the place of the field (clinical) practical training, the dates of its start and end, the number of manipulations and procedures or acquired credit units, to be certified by signature of the supervising teacher and person in charge of working with interns in the department.

The diary shall contain the data on case patients.

The development of practical skills is controlled by the group supervisor and must comply with the curriculum and the work program according to the major.

The student shall be personally responsible for the accuracy of keeping the diary. The total control of the volume and level of assimilation of abilities and skills by students is carried out in the course of a differentiated test at the end of the field (clinical) practice. Differentiated test: testing, case studies, interviews, showing the manipulation techniques on the models.

CLINICAL PRACTICE DIARY												
Date												
Clinical site												
The list of practical skills	Qty	Compe-tence	Signature of the teacher	Q-ty	Compe-tence	Signature of the teacher	Q-ty	Compe-tence	Signature of the teacher	Qty	Compe-tence	Signature of the teacher
Patient supervision												
Injections												
Determination of blood group and Rh factor												
Registration and deciphering of ECG												
Pneumotachometry, spirometry												
Rapid diagnostic methods												
Preparation of smears and material for cytological and bacteriological research												
Catheterization of the bladder												
Gastric lavage												
Finger examination of the rectum												
Finger examination of the prostate												
Ultrasonography												
Urgent medical aid												
Artificial respiration "mouth-to-mouth" and "mouth-to-nose"												
Techniques of clearing the upper airway upon fluid aspiration												
Indirect cardiac massage												
Surgery, traumatology												
Diagnostic therapeutic punctures												
Probing of cavities and fistulas												
Anesthesia												
Primary surgical treatment of wounds												
Removal of sutures												
Imposition of soft dressings												
Repair of dislocation												
Transport immobilization for fractures of extremities and spine												
Removal of superficial foreign bodies												
Treatment of burnt surfaces												

Treatment of infected wounds												
Opening of abscesses, felons, phlegmons												
Removal of ingrown nail												
Diathermocoagulation												
Neurology												
Neurological status												
Indications, foundations and interpretation of the results of a lumbar puncture												
Otorhinolaryngology												
Rhinoscopy												
Pharyngoscope												
Laryngoscopy												
Otoscopy												
Stopping of nasal bleeding												
Determination of patency of the auditory tube												
Probing and lavage of lacunas of tonsils												
Principles of opening a peritonsillar abscess												
Ophthalmology												
Funduscopy												
Eidoptometry												
Determination of color vision												
Optical vision correction, selection of glasses												
Measurement of intraocular pressure												
Pediatrics												
Assessment of the newborn's condition												
Assessment of psychomotor and physical development of the newborn												
Vaccination												
Obstetrics and gynecology												
Two-handed vaginal study												
Rectovaginal study												
Diagnostics of pregnancy												
Determination of the shape and size of the pelvis												

Pelvic ultrasound												
External obstetric examination												
Assessment of fetal heart rate												
Management of physiological delivery, assessment of the afterbirth												

4.4.2. Situational tasks
4.4.3. Test questions

No.	Case studies
	PC 1
1.	A 41-years-old patient worked in a book store with old books. **Complaints:** frequent pain and swelling of the metatarsophalangeal, ankle, knee joints, occurring with an increase in the body temperature up to 40 °C with chills, nausea; periodic aching, dull pain in the lumbar region, more on the left, frequent, painful urination. **From life history:** As a child, she suffered a closed head injury, in connection with which, on recommendation of a neurologist she has been taking analgesic drugs and furosemide up to 80 mg/day for a long time (for years). When she was 24 years old, she was overweight (+ 30-35 kg), and treated herself independently by starvation. 10 years ago, she suffered from arthritis of the first metatarsophalangeal joint of the right foot for the first time. Diagnosis: erysipelas, reactive arthritis. In summer of the same year, she experienced a right nephrectomy for renal carbuncle. The concentration of creatinine in serum during the period was 2.3 mg/dL, and uric acid - 7.8 mg/dL. In subsequent years, she has been taking NSAIDs (mostly Voltaren) about joint pain. His mother suffered from arthritis, the diagnosis has not been established. **Upon examination:** relative density of urine 1002-1008, pH 5.0, proteinuria 0.7 g/day, red blood cells max 8-10 in sight, leucocyturia 10-15 in sight, bacteriuria, uraturia. Concentration of creatinine in serum - 1.7 mg/dL, uric acid 8.7-11.5 mg/dL, GFR 47 ml/min. Renal ultrasound - left kidney contours are uneven, dimensions 100x56 mm, parenchyma up to 18 mm, the pyelocaliceal system is not expanded. The parenchyma contains multiple calcifications, hyperechoic pyramids syndrome, and small cysts in the upper pole. 1. Establish diagnosis. 2. Your tactics of the patient management Reference answers Diagnosis. Gout affecting the joints (recurrent acute arthritis), kidneys (urate nephropathy - a chronic interstitial nephritis CKD A3 C3), hyperuricemia. Recurrent urinary infection. Only the left kidney is available. 2. Further management tactics: Cancel furosemide! (promotes the uric acid increase in serum) Conversation with the patient and her relatives about the danger of starvation upon gout and on the lifestyle change (hypopurine diet, excessive drinking) Allopurinol in the background of administration of nimesulide or colchicine subject to monitoring of the level of serum creatinine and uric acid Treatment of urinary tract infection after urine cultivation subject to determination of the pathogen sensitivity to antibiotics
2.	What is the daily need of an adult in iodine? A. 150–200 ug B. 150–200 mg C. 60-80 ug D. 500 ug and more E. 10-15 g Correct answer: A

	Test questions
5.	Make a treatment plan in the Health School for patients exposed to the risk of the urinary tract diseases.
6.	Make a treatment plan in the Health School for patients exposed to the risk of endocrine diseases.
7.	Make a treatment plan in the Health School for patients exposed to the risk of hematological diseases.
8.	Present a technique of observation of a patient with diabetes mellitus.
9.	Present a technique of observation of a patient with anemia.
10.	Present a monitoring plan for a patient with chronic kidney disease.
	PC 5
1.	A 40-years-old patient complains of chilliness, drowsiness, constipation. Objective examination revealed the increase in the thyroid cancer and a primary hypothyroidism was suspected. To confirm this diagnosis, the most informative method is: A. Thyroid scintigraphy B. Determination of TSH level C. Determination of Ca++ level in blood D. Determination of T3 E. Determination of T4 Correct answer: B
2.	A 23-year-old patient suffering from osteomyelitis of the pelvic bones for 4 years had edema, ascites, hydrothorax. Examination drevealed nephrotic syndrome and hepatosplenomegaly. Thrombocytosis 868,000, and sharply increased levels of fibrinogen in blood. What is the most probable diagnosis? A. Post-infectious glomerulonephritis B. Decompensated cirrhosis B. Hepatorenal syndrome D. Secondary amyloidosis with renal impairment E. Myeloproliferative syndrome Correct answer: D.
3.	Two patients with chronic renal failure came to the family doctor: A. A 30-years-old man, with hypersthenic constitution and developed muscles, 190 cm, 90 kg. Sick with chronic glomerulonephritis for 12 years. At the time of examination - BP 150/90 mm Hg, blood creatinine 4.6 mg/dL (normal max 1.4), potassium 5.0 mmol/L, albumin 42 g/L, proteinuria of 2.0 g/day, erythrocyturia 40-50 in sight, relative urine density 1008. B. A 66-years-old woman, with hypersthenic constitution, 158 cm, 70 kg. Sick with diabetes mellitus for 10 years. At the time of examination - BP 155/85 mm Hg, blood creatinine 4.9 mg/dL (normal max 1.4), potassium 5.6 mmol/L, albumin 2.6 g/L, glucose 160 mg/dL (normal max 120), proteinuria 4.0 g/day, erythrocyturia 2-4 in sight, relative urine density 1009. In which case can we speak of greater reduction in the filtering function of kidneys and the availability of indications for replacement therapy? Provide substantiation. Standard answers: Despite almost the same level of serum creatinine, the loss of filtration function is more pronounced in the second case (GFR according to CKD-EPI formula - 10 ml/min, while in the first case - 16 ml/min).

	The main indication for referral of the patient to a nephrologist for consultation with a view to resolving the issue of the replacement therapy (hemodialysis), there is a marked reduction of the filtration function of kidneys; additional arguments are the presence of diabetes mellitus, for which an earlier initiation of the replacement therapy, hyperkalemia, and hypoalbuminemia is recommended.
4.	A 27-year-old Armenian, suffering from abdominal pain for 15 years, 2 years ago developed a proteinuria with rapid formation of nephrotic syndrome. The patient's cousin has similar pain attacks, his uncle died of kidney failure. What is the most probable diagnosis? A. Hereditary nephritis B. Periodic disease, hereditary amyloidosis C. Systemic lupus erythematosus D. Chronic glomerulonephritis E. Chronic pancreatitis Correct answer: B
5.	A 39-year-old patient with psoriasis has been suffering from a progressive impairment of large joints for 2 years. Treatment with NSAID has been ineffective. Hospitalized with complaints about swelling of the feet, which appeared a month ago and did not respond to diuretics. The examination revealed a picture of nephrotic syndrome, and liver enlargement. 1. What is your preliminary diagnosis? 2. What sgtudies are required to confirm the presumptive diagnosis? Reference answers 1. First of all, we should rule out secondary amyloidosis (AA) with renal impairment (nefrotic syndrome). 2. To clarify the nature of renal disease, it is required to conduct a morphological verification of the diagnosis (biopsy of the rectal mucosa? kidney biopsy?)
6.	A 45-years-old obese woman accidentally showed a fasting glucose of 9.2 mmol/L, glucosuria 3%, and negative acetone in urine. Her brother suffers from diabetes mellitus. Type of the patient's diabetes A. Insulin-dependent diabetes mellitus (Type 1) B. Insulin-independent diabetes mellitus (Type 2) C. Insulin-independent diabetes mellitus (Type 2), insulin-requiring D. Type 2 diabetes mellitus of the young (MODY) E. Secondary diabetes mellitus Correct answer: B
7.	A 45-years-old patient showed a hypertrophy of the parotid glands, Dupuytren's contracture, proteinuria 2.5 g/L, hematuria (50-60 red blood cells in sight). IgA level inblood is increased. What is the most lprobable diagnosis? A. Berger's disease B. Glomerulonephritis upon hemorrhagic vasculitis C. Glomerulonephritis of alcoholic etiology D. Lupus nephritis E. Pyelonephritis Correct answer: C
8.	A 40-years-old patient, the seller At the age of 20, after delivery (big twins), the general visceroptosia was noted. After 13 years, there were headaches, weakness, nausea, periodic pain in the lumbar region. When she visited a doctor, there was registered an increase in the blood pressure up to 150/100 mm Hg The urinalysis showed the bacteria, no other changes have been identified. Hypertensive disease was diagnosed. Antihypertensive therapy turned out to be ineffective from the outset. Over time, BP was established at the level of 180-

	190/110-120 mm Hg, the disease was complicated by frequent hypertensive crisis with the rise in blood pressure up to 230/130 mm Hg After 7 years of hypertension, she was admitted to hospital for the first time for examination, as a result of which the following was diagnosed: Bilateral nephroptosis, chronic pyelonephritis. Symptomatic hypertension. Specify the reasons for diagnostic error: A) underestimation of history B) insufficient survey C) incorrect interpretation of laboratory findings D) severe general condition, which did not allow to conduct a full survey Correct answer: A, B
9.	What is the Graefe symptom? A. One of the eye symptoms of hyperthyroidism B. From all diseases occurring upon thyrotoxicosis, it is characteristic of diffuse toxic goiter only C. Indicates the presence of endocrine ophthalmopathy D. Allows to evaluate the severity of hyperthyroidism indirectly E. All of the above are true Correct answer: A
	Test questions
10.	Anemias. Definition. Classification. Clinical signs. Diagnostics and differential diagnostics.
11.	Thrombocytopenias. Definition. Classification. Clinical signs. Diagnostics and differential diagnostics.
12.	Diabetes mellitus in children. Definition. Classification. Clinical signs. Diagnostics and differential diagnostics. Treatment. Prevention and tactics of the general practitioner. Indications for hospitalization and specialist's advice
13.	Hypothyroidism. Definition. Classification. Clinical signs. Diagnostics and differential diagnostics.
14.	Chronic kidney disease. Diagnostic criteria. The role of the family physician in early diagnostics.
	PC 6
1.	A 39-year-old patient with psoriasis has been suffering from a progressive impairment of large joints for 2 years. Treatment with NSAID has been ineffective. Hospitalized with complaints about swelling of the feet, which appeared a month ago and did not respond to diuretics. The examination revealed a picture of nephrotic syndrome, and liver enlargement. Kidney biopsy revealed an amyloid. What drugs may be used to treat the patient? A. Prednisolone B. Azathioprine C. Colchicine D. Unitiol E. Dimethyl sulfoxide Correct answer: C, D, E
2.	A 72-years-old patient has been followed up by a GP for 6 years about generalized atherosclerosis and hypertension. Over the past year, she has been taking arifonretard and diroton effectively: BP was stabilized at a level of 140 and 80 mm Hg Over the current month, the blood pressure has increased to 180 mm and 90 Hg, despite the continuation of a previously effective antihypertensive therapy. 1. Your diagnosis? 2. Your tactics?

	Reference answers 1. Ischemic kidney disease? 2. Renal artery ultrasound to rule out the renal artery stenosis. Upon confirmation of a bilateral renal artery stenosis, withdraw from taking diroton (ACE inhibitor), and replace it with another antihypertensive drug (calcium channel blockers).
3.	A 52-years-old patient with type I diabetes mellitus and arterial hypertension (max. blood pressure 160 and 100 mm Hg), for the first time, twice in a row with an interval of 3 weeks, showed proteinuria 0.3 - 0.5 g/L. What is the drug of choice for this patient? A. Indapamide B. Prazosin C. Bisoprolol D. Losartan Correct answer: D.
4.	Patient S., 30 years old, was hospitalized with complaints about general weakness, decreased performance, drowsiness, dizziness, tinnitus, taste alteration (eats raw cereals, raw potatoes), brittle nails, hair loss. These complaints have been persisting for nearly a year. She notes the progression of symptoms over time. She did not ask for medical assistance until now. A significant deterioration is noted over the past month, which forced to ask for medical assistance. It was found that the patient regular menses, lasting up to 7 days, the first day marks the presence of clots, the duration of cycle 26 days. Condition is satisfactory. Skin and visible mucous membranes are clean, pale. The finger nail plates have transverse striations. The peripheral lymph nodes accessible for palpation are not enlarged. The broncho-pulmonary system is unremarkable. The heart sounds are muffled, rhythmic, tachycardia, soft systolic murmur at the apex. The boundaries of the relative dullness of the heart are within the normal range. PS and HR = 96 min. Blood pressure 106/74 mm Hg. The abdominal cavity organs at the time of examination are unremarkable. Complete blood count: Hb 68 g/L; RBC - $3.8x10^{12}$/L; color indicator - 0.53; reticulocytes -19%; Tr - $250.0x10^{9}$/l; ESR - 5 mm/hour; L - $7.6x10^{9}$/L; WBC is normal. Anisocytosis, hypochromia of erythrocytes. Iron content in the blood serum - 3.2 mmol/L; FEGDS - surface gastritis. Myelogram - the erythroid sprout is 41.6%. Gynecologist - uterine fibroid up to 7 weeks. 1. Your diagnosis. 2. Treatment principles Reference answers 1. Anemia of unclear origin. Based on the characteristics of complaints and history (dysgeusia, brittle nails, hair loss, abundant menses), we can assume iron deficiency anemia. 2. Iron deficiency anemia should be treated with oral iron preparations - ferroplex, tardiferon, aktiferrin, sorbifer, instead of the drugs for parenteral administration; the iron preparations shall be administered for a prolonged period in an adequate dose (up to 300 mg iron per day) for at least 4-8 weeks to normalize the hemoglobin level, and then in half dose for 2 to 3 months
5.	A 58-years-old patient. Works as a school teacher. During a year, he noted the increase in cervical lymph nodes, which gradually increased in size, and lymph nodes in the other areas appeared. Upon examination: cervical, axillary, inguinal lymph nodes are enlarged, have a densely-elastic consistency, painless, not soldered to the skin and surrounding tissues in the form of packets. The spleen edge is palpated 4 cm below the costal arch. Blood test: RBC - 4.0x10/L, Hb - 145 g/L, platelets - $350x10^{9}$/L, WBC - $77x10^{9}$/L, segmented - 1%, lymphocytes - 97%, monocytes - 2%, leukolysis cells 2-3 in sight, ESR - 20 mm/h. 1. Establish preliminary diagnosis. 2. What activities are required for its ultimate confirmation

	Reference answers. 1. Preliminary diagnosis: chronic lymphocytic leukemia. 2. For establishing ultimate diagnosis, hospitalization is required in order to study bone marrow; the myelogram must show more than 30% of lymphocytes. Further,discussion should be held on the feasibility of cytostatic therapy.
6.	A 76-years-old patient suffers from diabetes mellitus and kidney disease (CKD AZ, C3a), asthma and hypertension. max BP -180/100 mm Hg. Heart rate 50-55 per minute. The antihypertensives of which group are preferred in this clinical situation? A. A. Beta-blockers B. Verapamil C. ACE inhibitors D. Calcium channel blockers of dehydropiridine series Correct answer: C
	Test questions
7.	Anemias. Treatment. Prevention and tactics of a general practitioner. Indications for hospitalization and specialists' consultations
8.	Thrombocytopenias. Definition. Treatment. Prevention and tactics of a general practitioner. Indications for hospitalization and specialists' consultations
9.	Diabetes mellitus in adults. Definition. Classification. Clinical signs. Diagnostics and differential diagnostics. Treatment. Prevention and tactics of a general practitioner. Indications for hospitalization and specialists' consultations
10.	Hypothyroidism. Clinical signs. Treatment. Prevention and tactics of a general practitioner. Indications for hospitalization and specialists' consultations
11.	Chronic kidney disease. Renoprotective therapy in a general practice.
12.	The principles of antimicrobial therapy of urinary tract infections in the outpatient setting.

5. Educational,methodological and informational support of the practicaltraining (printed, electronic publications, the Internet and other network resources).

No	Name according to the bibliographical requirements	Number of copies	
		In the department	In the library
1	A Textbook of Family Medicine/Ian R. McWhinney; Thomas Freeman.– 3rd ed.; 2009, p. 472		1
2	Textbook of Family Medicine, /Robert E. Rakel, David Rakel MD. –9th Ed.; 2015, p. 1215		1
3	Resident's Guide to Ambulatory Care/Michael B. Weinstock, Miriam Chan. – 7th ed.,2015, p.		1
4	The Family Medicine Handbook: Mobile Medicine/Mark A. Graber, Jennifer L. Jones, Jason K. Wilbur–5th Ed., 2006, p.		1
5	Outpatient and Primary Care Medicine/Paul D. Chan, David M. Thomas, Elizabeth K. Stanford. –2010th Ed., 2010, p. 294		1
6	Sanford Guide to Antimicrobial Therapy/ David N Gilbert. – 46th., 2016, p.		1
7	Tarascon Pocket Pharmacopoeia/2017 Deluxe Lab-Coat,Richard J. Hamilton. – 18th Ed., 2017, p.470		1
8	Tarascon Medical Procedures Pocketbook/Joseph S. Esherick. –1st Ed.,2012, p.240		1
9	The Color Atlas of Family Medicine/Richard P. Usatine, Mindy Ann Smith, E.J. Mayeaux Jr. –2nd Ed.,2017, p.		1
10	Current Diagnosis & Treatment in Family		1

	Medicine/Jeannette South-Paul, Samuel Matheny, Evelyn Lewis. – 4th Ed.,2015, P. 752		
11	Procedures for Primary Care/John L. Pfenninger, Grant C. Fowler.– 3e Ed.,2011, p. 1776		1
12	Clinical Procedures for Health Professionals/H.Multak – 2017, p.196		1
13	Oxford American handbook of clinical examination and practical skills / edited by Elizabeth A. Burns, Kenneth Korn, James Whyte IV ; with James Thomas, Tanya Monaghan. 2011, p. 692		1
14	10 Minute Clinical Assessment. 2nd Edition, 2016, p.896		1
15	Hershko C., Camaschella C. How I treat unexplained refractory iron deficiency anemia. Blood.2014;123(3):326-333 DOI: http://dx.doi.org/10.1182/blood-2013-10-512624		1
16	The 5 Minute Urology Consult (The 5-Minute Consult Series)/Leonard G. – 3 th Ed., 2015, p.1032		1
17	Simone Van Hattem, Aart H. Bootsma, H. Bing Thio, Skin manifestations of diabetes Cleveland Clinic Journal of Medicine November 2008 vol. 75 no. 11,772-787		1
18	The Patient-Doctor Consultation in Primary Care/J Thistlethwaite and P Morris.-2007, p. 260		1

5.2. A list of methodological recmmendations on holding practical training for interns and teachers (if any):

No	Name according to bibliographical requirements	Number of copies	
		In the department	In the library
1	The Condensed Curriculum Guide/Ben Riley, Jayne Haynes, Steve Field.- 2nd Edition,2012,p.368	1	1
2	Oxford Handbook of General Practice/Chantal Simon, Hazel Everitt, Francoise van Dorp, Matt Burkes.- 4th Ed., 2014,p. 1184	1	1

6.Financial and logistics support of the practical training

6.1. The list of types of organizations* required for holding the practical training:

- an in-patient facility with "nephrological" beds;
- a polyclinic for children and adults;
- an office for a general practitioner

*structural units of educational and scientific organizations carrying out medical or pharmaceutical activities (clinics); medical organizations, including healthcare organizations located within the structural units of educational and scientific institutions (clinical base); organizations operating in health care sector, including the organizations, in which the structural units of educational and scientific organizations are located.

6.2. The list of equipment* required for holding the practical training:

- class (room) equipped with simulation machinery;
- equipped GP's office (tonometer + stethoscope, oto-ophthalmoscope, electrocardiograph, blood glucose meter, test strips, table + set of lenses for visual acuity determination and selection of glasses);

- laboratory equipment (glucose meter, test strips for the rapid diagnostics)
**laboratory, tool equipment (specify which in particular)etc.*