

**THEMATIC PLAN OF PRACTICAL CASES ON OUTPATIENT THERAPY  
FOR 5<sup>TH</sup> YEAR FOREIGN STUDENTS**

**Literature:**

1 Clinical electrocardiography : recommended by the medical school in higher medical and pharmaceutical education as a guide for students of higher education institutions, students in the specialty 1-79 01 01 "General Medicine" / МЗ РБ, УО "ГрГМУ", 1-я кафедра внутренних болезней; [авторы: В. М. Пырочкин, Ю. И. Карпович, А. В. Пырочкин, Е. В. Мирончик]. - Гродно: ГрГМУ, 2019. - 199 с.

2. Diagnostics and treatment of internal diseases in an outpatient department: handbook for 5<sup>th</sup> and 6<sup>th</sup> year students of the Medical Faculty for International students / МЗ РБ, УО "ГрГМУ", Кафедра общей врачебной практики и поликлинической терапии; [Е. Н.Кежун, Н. С. Слободская, Д. Ю. Пицко, К. В. Гончар]. - Гродно: ГрГМУ, 2018. - 199 с.

3. Oxford handbook of general practice [Text] / Simon Chantal [et al.]. - 4<sup>th</sup> ed. - Oxford: Oxford university press, reprinted 2015.

4. Harrison's Manual of Medicine [Text] / editors: Dan L. Longo [et al.]. - 18<sup>th</sup> ed. - New York [etc.]: McGraw-Hill, Medical, 2013.

**Class 1: Bronchial obstructive syndrome: differential diagnosis. Diagnosis and treatment of asthma and chronic obstructive pulmonary disease (COPD) in an outpatient setting, medical tactics, medical and social assessment, clinical examination, primary prevention. Emergency care in asthma attack and developing status asthmaticus.**

**Time lesson 8.00-12.15**

<b>Time</b>	<b>Theme, method</b>	<b>Content</b>	<b>Materials</b>
<b>8.00-9.30</b>	Students survey	Analysis of the material, familiarization with the regulatory documents	Regulations. Basic forms of medical documentation, "4D client" program
<b>9.30-9.45</b>	<b>Break</b>		
<b>9.45-11.15</b>	Independent work of students	Working in a doctor's office: Collect anamnesis, conduct objective examination, data of additional methods, justification of the diagnosis Analysis of radiographs, spirogram	Participation in the admission of patients, discharge of SL, prescriptions, work in the "4D client" program. Registration of medical records
<b>11.15-11.30</b>	<b>Break</b>		
<b>11.30-11.50</b>	Discussion, demonstration of skills	Clinical analysis of patients	Patient, outpatient card
<b>11.50-12.05</b>	Brainstorm	Solving situational tasks	Situational tasks (4 tasks)
<b>12.05-12.15</b>	Securing of material "What's new I've learned today"		

**Session Purpose:** To teach students the diagnosis, treatment, clinical examination, and examination of the prevention of disability in patients with bronchial asthma and COPD in an outpatient setting and principles of emergency care at an attack of asthma patients in a clinic.

**Study Questions**

1. Concept of bronchial obstructive syndrome, major diseases, accompanied by the syndrome. Diagnostic search algorithm in bronchial obstructive syndrome.
2. Classification of asthma and COPD. Plan examination of the patient with asthma and COPD in an outpatient setting.
3. General principles of treatment of asthma and COPD in an outpatient setting, indications for hospitalization.
4. Medical and social assessment (the period of temporary disability, the indications for rational employment of patients sent for MREB), clinical examination.
5. Prevention of asthma and COPD.
6. Emergency outpatient care in asthma attack and developing status asthmaticus.

**Class 2: Differential diagnosis of chest pain. Noncoronary heart disease: patient diagnosis, treatment guidelines, medical tactics, medical and social assessment, clinical examination, prevention**

**Time lesson 8.00-12.15**

<b>Time</b>	<b>Theme, method</b>	<b>Content</b>	<b>Materials</b>
<b>8.00-9.30</b>	Students survey	Analysis of the material, familiarization with the regulatory documents	Regulations. Basic forms of medical documentation, "4D client" program
<b>9.30-9.45</b>	<b>Break</b>		
<b>9.45-11.15</b>	Independent work of students	Working in a doctor's office: Collect anamnesis, conduct objective examination, data of additional methods, justification of the diagnosis Analysis of radiographs, spirogram	Participation in the admission of patients, discharge of SL, prescriptions, work in the "4D client" program. Registration of medical records
<b>11.15-11.30</b>	<b>Break</b>		
<b>11.30-11.50</b>	Discussion, demonstration of skills	Clinical analysis of patients	Patient, outpatient card
<b>11.50-12.05</b>	Brainstorm	Solving situational tasks	Situational tasks (4 tasks)
<b>12.05-12.15</b>	Securing of material "What's new I've learned today"		

**Session Purpose:** To teach students outpatient diagnosis noncoronary heart disease, treatment strategies, clinical examination, and examination methods of prevention of disability of patients with this pathology in a clinic.

## Study Questions

1. Pain in acute coronary syndrome (ACS), myocardial infarction (MI) and unstable angina (UA). Differential diagnosis, treatment of MI, outpatient rehabilitation.
2. Features of pain in noncoronary heart disease (dry pericarditis, myocarditis, dilated and hypertrophic cardiomyopathy), with somatoform dysfunction of the autonomic nervous system (neurodystonia), mitral valve prolapse.
3. Features of pain in the chest caused by diseases of the abdominal organs, lungs and pleura, peripheral nervous system and muscles of the shoulder girdle (intercostal neuralgia, osteochondrosis of the cervical-thoracic segment of spine, shingles). Differential diagnosis with heart disease.
4. Diagnostic search algorithm. Differential diagnosis.
5. General principles of treatment and examination of patients with noncoronary heart disease in an outpatient setting. Indications for hospitalization.
6. Medical and social assessment in MI and noncoronary heart disease (justification and timing of temporary disability, the indications for rational employment of patients sent for MREB), dispensation.
7. Primary and secondary prevention of noncoronary heart disease.

**Class 3: Articular syndrome: differential diagnosis. Diagnosis and treatment of inflammatory diseases (rheumatoid arthritis, reactive arthritis) and degenerative (primary osteoarthritis) joint disease at outpatient setting, medical tactic, medical and social assessment, dispensation, primary prevention.**

### Time lesson 8.00-13.00

Time	Theme, method	Content	Materials
8.00-9.30	Students survey	Analysis of the material, familiarization with the regulatory documents	Regulations. Basic forms of medical documentation, "4D client" program
9.30-9.45	<b>Break</b>		
9.45-11.15	Independent work of students	Working in a doctor's office: Collect anamnesis, conduct objective examination, data of additional methods, justification of the diagnosis Analysis of radiographs, spirogram	Participation in the admission of patients, discharge of SL, prescriptions, work in the "4D client" program. Registration of medical records
11.15-11.30	<b>Break</b>		
11.30-12.00	Discussion, demonstration of skills	Clinical analysis of patients	Patient, outpatient card
12.00-12.45	Brainstorm	Solving situational tasks	Situational tasks (3 tasks)
12.45-13.00	Securing of material "What's new I've learned today"		

**Session Purpose:** To teach students the diagnosis, principles of rational therapy, disability examination, dispensation and prevention of patients with inflammatory diseases (rheumatoid arthritis, reactive arthritis) and degenerative (primary osteoarthritis) joint diseases in the outpatient setting.

**Study Questions**

1. Articular syndrome: the notion of arthritis, arthrosis, arthropathy. Methods of general and special physical examination of the joints and spine.
2. Major diseases accompanied articular syndrome. Diagnostic search algorithm with articular syndrome.
3. Rheumatoid arthritis: survey design, diagnostic criteria. Medical tactic.
4. General principles of outpatient treatment, indications for hospitalization.
5. Medical and social assessment (justification and timing of temporary disability, the indications for rational employment of patients sent for MREB), dispensation.
6. Reactive arthritis: a definition, survey, differential diagnosis. General principles of treatment on an outpatient basis, medical and social assessment, dispensation.
7. Primary osteoarthritis: diagnostic criteria, survey the patient, outpatient treatment, medical and social assessment (direction to MREB), dispensation.
8. Prevention of inflammatory joint disease and primary osteoarthritis.

**Class 4: Dyspeptic syndrome and abdominal pain: differential diagnosis and tactics of GP in outpatient conditions. Irritable bowel syndrome: patient diagnosis, treatment and rehabilitation of patients. Acute abdomen, medical tactic.**

**Time lesson 8.00-13.00**

<b>Time</b>	<b>Theme, method</b>	<b>Content</b>	<b>Materials</b>
<b>8.00-9.30</b>	Students survey	Analysis of the material, familiarization with the regulatory documents	Regulations. Basic forms of medical documentation, "4D client" program
<b>9.30-9.45</b>	<b>Break</b>		
<b>9.45-11.15</b>	Independent work of students	Working in a doctor's office: Collect anamnesis, conduct objective examination, data of additional methods, justification of the diagnosis Analysis of radiographs	Participation in the admission of patients, discharge of SL, prescriptions, work in the "4D client" program. Registration of medical records
<b>11.15-11.30</b>	<b>Break</b>		
<b>11.30-12.00</b>	Discussion, demonstration of skills	Clinical analysis of patients	Patient, outpatient card
<b>12.00-12.45</b>	Brainstorm	Solving situational tasks	Situational tasks (3 tasks)
<b>12.45-13.00</b>	Securing of material "What's new I've learned today"		

**Session Purpose:** To teach students the 5<sup>th</sup> year of the differential diagnosis, choosing the right tactics and emergency care to patients with abdominal pain.

### Study Questions

1. Differential diagnosis of abdominal pain; "Acute abdomen", tactics therapist outpatient conditions.
2. Clinic, diagnostics and tactics practitioner with pancreatitis. Treatment in outpatient settings.
3. Concept chronic colitis. The clinic, diagnosis and tactics practitioner in chronic colitis. Treatment in outpatient settings.
4. Functional gastrointestinal diseases. Dyspeptic syndrome various digestive tract: stomach, intestines, biliary tract, survey the patient in an outpatient setting.
5. IBS: clinical, diagnostic criteria, treatment in outpatient settings.

**Class 5 Differential diagnosis of jaundice and hepatosplenomegaly. Diagnosis and treatment of diseases of the liver, gallbladder and biliary tract outpatient, medical tactics, medical and social assessment, clinical examination, primary prevention. Emergency care in hepatic colic**

### Time lesson 8.00-13.00

Time	Theme, method	Content	Materials
8.00-9.30	Students survey	Analysis of the material, familiarization with the regulatory documents	Regulations. Basic forms of medical documentation, "4D client" program
9.30-9.45	<b>Break</b>		
9.45-11.15	Independent work of students	Working in a doctor's office: Collect anamnesis, conduct objective examination, data of additional methods, justification of the diagnosis Analysis of radiographs, spirogram	Participation in the admission of patients, discharge of SL, prescriptions, work in the "4D client" program. Registration of medical records
11.15-11.30	<b>Break</b>		
11.30-12.00	Discussion, demonstration of skills	Clinical analysis of patients	Patient, outpatient card
12.00-12.45	Brainstorm	Solving situational tasks	Situational tasks (3 tasks)
12.45-13.00	Securing of material "What's new I've learned today"		

**Session Purpose:** To teach students the diagnosis, treatment, dispensation, examination of disability of diseases of liver and biliary tract in patients on an outpatient basis.

### Study Questions

1. Jaundice: concept, classification.
2. Hepatomegaly, splenomegaly, hypersplenism: concept, causes; diseases accompanied by hepato- and/or splenomegaly, differential diagnosis.

3. Laboratory and clinical syndromes of liver damage (cytolysis mesenchymal inflammation, cholestasis, hepatocellular insufficiency), the clinical significance.
4. Chronic hepatitis and cirrhosis: differential diagnosis of cirrhosis, chronic hepatitis and primary liver cancer. Survey plan of the patient.
5. General principles of treatment on an outpatient basis, medical tactics, medical and social assessment, dispensarization.
6. Chronic cholecystitis, gallbladder dysfunction and dysfunction of the sphincter of Oddi: a plan of patient examination, differential diagnosis.
7. Outpatient treatment, indications for patient consultation the surgeon, medical and social examination, dispensarization. Prevention of diseases of the hepatobiliary system.
8. Emergency care in hepatic colic, medical tactic.

**Class 6. Urinary syndrome: differential diagnosis. Methods of diagnosis of kidney disease in an outpatient setting. Treatment of chronic pyelonephritis, glomerulonephritis, and chronic renal failure in an outpatient setting, medical tactics, medical and social assessment, clinical examination, primary prevention. Emergency care in renal colic.**

**Time lesson 8.00-13.00**

<b>Time</b>	<b>Theme, method</b>	<b>Content</b>	<b>Materials</b>
<b>8.00-9.30</b>	Students survey	Analysis of the material, familiarization with the regulatory documents	Regulations. Basic forms of medical documentation, "4D client" program
<b>9.30-9.45</b>	<b>Break</b>		
<b>9.45-11.15</b>	Independent work of students	Working in a doctor's office: Collect anamnesis, conduct objective examination, data of additional methods, justification of the diagnosis	Interpretation of laboratory tests: general urine analysis, urine analysis according to Nechiporenko
<b>11.15-11.30</b>	<b>Break</b>		
<b>11.30-12.00</b>	Final questions	Final survey	Written survey
<b>12.00-12.45</b>	Brainstorm	Solving situational tasks	Situational tasks (3 tasks)
<b>12.45-13.00</b>	Securing of material "What's new I've learned today"		

**Session Purpose:** To teach students diagnosis, differential diagnosis, treatment strategy, examination of disability and prevention of kidney disease in patients on an outpatient basis.

**Study Questions**

1. Notion of urinary syndrome, its features in glomerulonephritis, pyelonephritis, urolithiasis, urethritis, cystitis, bladder cancer, renal disease.
2. Diagnostic search algorithm with urinary syndrome. Plan examination of the patient with chronic pyelonephritis, chronic glomerulonephritis, chronic renal failure in an outpatient

setting. Methods of diagnosis of kidney disease in an outpatient setting. Indications for hospitalization of patients.

3. Approach to the Patient with chronic renal failure.
4. General principles of treatment of patients with chronic pyelonephritis, chronic glomerulonephritis, and chronic renal failure in an outpatient setting.
5. Medico-social examination (justification and timing of temporary disability, the indications for rational employment of patients sent for MREB), dispensarization.
6. Prevention of chronic pyelonephritis, chronic glomerulonephritis, and chronic renal failure.
7. Renal colic: clinical, emergency outpatient care, medical tactic.

**Class 7 Definition of anemia syndrome. Classification of anemia in pathogenesis (posthemorrhagic, dyserythropoietic, hemolytic), color index, size and volume of erythrocytes, saturation with hemoglobin, regenerative capacity of the bone marrow. Differential diagnosis of anemic syndrome. Outpatient aspects of diagnosis and treatment of anemias caused by iron deficiency, B<sub>12</sub>-vitamins and folic acid deficiency. Differential diagnosis of conditions accompanied by loss of consciousness (syncope, coma). Diabetic (hyperglycemic and hypoglycemic) coma. Therapeutic aspects of management of patients with type 2 diabetes mellitus in outpatient settings, prevention of its complications.**

**Time lesson 8.00-13.00**

<b>Time</b>	<b>Theme, method</b>	<b>Content</b>	<b>Materials</b>
<b>8.00-9.30</b>	Students survey	Analysis of the material, familiarization with the regulatory documents	Regulations. Basic forms of medical documentation, "4D client" program
<b>9.30-9.45</b>	<b>Break</b>		
<b>9.45-11.15</b>	Independent work of students	Working in a doctor's office: Collect anamnesis, conduct objective examination, data of additional methods, justification of the diagnosis	Participation in the admission of patients, discharge of SL, prescriptions, work in the "4D client" program. Registration of medical records
<b>11.15-11.30</b>	<b>Break</b>		
<b>11.30-12.00</b>	Discussion, demonstration of skills	Clinical analysis of patients	Patient, outpatient card
<b>12.00-12.45</b>	Brainstorm	Solving situational tasks	Situational tasks (5 tasks)
<b>12.45-13.00</b>	Securing of material "What's new I've learned today"		

**Session Purpose:** To teach students the diagnosis, treatment, dispensarization, examination of disability, first aid in patients with anemia, diabetes mellitus and coma on an outpatient basis.

**Study Questions**

1. Definition of anemia syndrome. Classification of anemia in pathogenesis (posthemorrhagic, dyserythropoietic, hemolytic), color index, size and volume of erythrocytes, saturation with hemoglobin, regenerative capacity of the bone marrow.
2. Algorithm of diagnostic search in anemic syndrome.
3. Differential diagnosis of hypochromic anemia (with iron deficiency and normal iron saturation).
4. Differential diagnosis of hyperchromic anemia (B<sub>12</sub>-vitamin and folic deficiency).
5. Differential diagnosis of normochromic anemia (hypo- and aplastic, hemolytic).
6. Iron deficiency anemia: causes, features of clinical manifestations, blood picture, medical tactics, patient examination plan, outpatient treatment, rehabilitation, examination of temporary disability, prevention.
7. B<sub>12</sub>-vitamin and folic acid deficiency anemia: causes, clinical manifestations and blood picture, differential diagnosis, the patient's plan of inspection, medical tactics, outpatient treatment, rehabilitation, examination of temporary disability, prevention.
8. Conditions accompanied by loss of consciousness: fainting, coma.
9. Pathogenesis and objective signs of coma, degree of severity.
10. Systematization of coma in terms of speed and duration.
11. Causes of sudden short-term loss of consciousness, sudden and prolonged loss of consciousness, prolonged loss of consciousness with a gradual onset, loss of consciousness with unknown origin and unknown duration.
12. The sequence and characteristics of a physical examination of a patient who is unconscious, a questioning of eyewitnesses. Emergency medical care for syncope, coma of unclear etiology, medical tactics.
13. Causes and pathogenesis of coma in diabetes mellitus. Hyperglycemic (ketoacidotic, hyperosmolar, lacticidemic) and hypoglycemic coma: diagnosis, emergency medical care, prevention.
14. Diabetes mellitus type 2: principles of diagnosis and treatment in outpatient settings, examination of temporary disability, indications for referral to MREB, dispensation, prevention of complications.