

EXAMINATION QUESTIONS
in internal medicine for the 4th-year student of the faculty of training
for foreign countries

1. Terminology, the definition of arterial hypertension. Epidemiology. The aetiology and pathogenesis of arterial hypertension. The role of central dysregulation of arterial pressure, sympathetic nervous system, humoral and hormonal pressors (renin, angiotensin, endothelin, aldosterone) and depressor (kinins, prostaglandins, endothelium-relaxing factor, atrial natriuretic peptide) factors in the genesis and progression of the disease.

2. Classification of arterial hypertension (ICD-X, on the aetiology (WHO), the degree of high blood pressure). Stratification of risk. Diagnosis of hypertension. Regulation of blood pressure measurement. Clinical examination of patients with hypertension. Ambulatory blood pressure monitoring. Examples of formulations of diagnosis.

3. The clinical picture and course of hypertension in some categories of patients (pregnant women, elderly and senile age, adolescents, patients with concomitant diseases). The differential diagnosis of arterial hypertension. Renal arterial hypertension (renovascular, with parenchymal renal disease). Endocrine arterial hypertension (syndrome and Cushing's disease, pheochromocytoma, aldosteronoma). Hemodynamic hypertension.

4. Treatment of hypertension: treatment, nutrition, and other non-drug measures. Differential use of antihypertensive agents of different mechanism of action taking into account comorbidities. Principles of combination drug therapy. Primary and secondary prevention.

5. Hypertensive crises: causes, clinical types, diagnostic criteria. Relief of hypertensive crises. Differential treatment.

6. The concept of coronary heart disease. Risk factors. The states that provoke and exacerbate myocardial ischemia. The pathogenesis of pain in coronary artery disease. The epidemiology and social significance of coronary heart disease.

7. Classification of coronary heart disease (ICD-X, WHO). Stable angina. Other forms of angina and ischemic syndromes (painless, asymptomatic and clinically atypical angina equivalents, hibernating, stunned myocardium, preconditioning, the first and second window of protection) and their clinical significance.

8. Diagnostic criteria for angina pain. Exclusion criteria were ischemic chest pain. The differential diagnosis. Instrumental diagnosis of stable angina (ECG and pharmacological stress testing), coronary angiography, electrophysiological studies, etc.). Functional classes of the severity of stable angina. Forecast. The criteria for high risk of myocardial infarction and sudden death.

9. Relief of pain and prevention of attacks with stable angina. The main classes of drugs in terms of "evidence-based medicine." Place of metabolic therapy in the treatment of coronary heart disease. Indications for surgical treatment and endovascular surgery in stable angina. The value of physical training in rehabilitation of patients with ischemic heart disease.

10. The concept of "acute coronary syndrome." The main factors leading to the development of acute coronary syndromes. Markers of high risk acute coronary syndromes. And not correctable risk factors of acute coronary syndromes. Sudden cardiac death - definition, epidemiology, pathogenesis. The tactics of the doctor (the criteria for clinical and biological death, the modern rules of cardiopulmonary resuscitation).

11. Acute coronary syndrome without ST elevation ST. Pathogenesis. Classification of unstable angina. The algorithm of medical tactics in acute coronary syndrome without elevation segment elevation ST. The value of the time factor in the provision of care to patients. Forecast. Anticoagulation for the acute coronary syndrome.

12. Acute coronary syndrome with an elevation of segment ST. The clinical picture. Atypical forms of myocardial infarction. Thrombolytic therapy in myocardial infarction - evidence, the absolute and relative contraindications. Essential medicines.

13. Topical ECG diagnosis of myocardial infarction. Microfocal, and macrofocal, transmural myocardial infarction. ECG changes in different periods of myocardial infarction.

14. Laboratory diagnosis of myocardial infarction: changes in the blood picture, the dynamics of biochemical markers of myocardial damage. The most informative serological tests.
15. Differential diagnosis of pain in myocardial infarction. Indications for endovascular coronary interventions. Rehabilitation and clinical examination of patients with myocardial infarction, coronary intervention or endovascular surgery and aorto- and mammaro-coronary bypass.
16. Syncope and collapse: clinical manifestation, differential diagnosis, treatment.
17. The definition of "heart failure" in light of modern ideas about the aetiology and pathogenesis of heart failure. The concept of the cardiovascular continuum. Aggravating and contributing factors. Epidemiology of chronic heart failure. Modern classification of chronic heart failure. Clinical manifestations of chronic heart failure. The concept of latent heart failure. Diagnosis of heart failure. Additional clinical and research methods.
18. The evolution of views on the pathogenic treatment of chronic heart failure. The basic, additional and auxiliary group of drugs for the treatment of chronic heart failure. Nonpharmacological treatment of chronic heart failure. Modern hardware features and surgical treatment. Prevention of chronic heart failure. Dispensary observation of patients with chronic heart failure.
19. Lung artery hypertension. The aetiology and pathogenesis of lung artery and venous hypertension. Clinical manifestation, classification, differential diagnosis, treatment.
20. "Cor pulmonare". The aetiology and pathogenesis, clinical manifestation, classification, differential diagnosis, treatment.
21. Lung artery thromboembolism. The etiology and pathogenesis, clinical manifestation, classification, differential diagnosis, treatment.
22. General concepts of acid-associated symptoms, syndromes and disease states. Diagnostic criteria. Point system evaluation of clinical manifestations. The volume of the survey and general approaches to treatment.
23. Dyspepsia - types, diagnostic Rome criteria. "The symptoms of anxiety." The volume of the survey and general approaches to treatment.
24. The modern definition of gastroesophageal reflux disease. Provoke gastroesophageal reflux factors. Forecast. The classification of gastroesophageal reflux disease and esophagitis. Barrett's oesophagus. Treatment of gastroesophageal reflux disease: diet, recommendations for work and rest, the principles of drug therapy, the indications for surgical treatment.
25. The aetiology and pathogenesis of chronic gastritis. The role of *Helicobacter pylori* in the development of inflammation, atrophy and dysplasia of the mucosa and gastric cancer. Dispensary observation of patients with chronic gastritis. The concept of cancer prevention. Methods for detection of infection *Helicobacter pylori*.
26. Modern classification of chronic gastritis (Sydney-Houston, OLGA, ICD-X). Clinical presentation and diagnosis of chronic gastritis. The value of endoscopic and morphological methods.
27. Treatment of chronic gastritis. Drug agents: antacids, H₂ blockers, histamine receptor blockers, proton pump inhibitors, prokinetics, etc. "The phenomenon of translocation". The principles and schemes of eradication *Helicobacter pylori* (Maastricht consensus). Reasons for failure antihelicobacter therapy and ways to improve the efficiency of the latter.
28. The aetiology and pathogenesis of erosive and ulcerative lesions of the gastroduodenal mucosa. Classification of erosive and ulcerative lesions of the stomach and duodenum ICD-X. Clinical presentation and diagnosis of gastroduodenal ulcers. Symptomatic gastroduodenal ulcers.
29. Treatment of gastroduodenal ulcers. Drug agents: antacids, H₂-histamine receptor blockers, proton pump inhibitors, gastrocytoprotection and others relapse treatment. Complications of gastroduodenal ulcers: perforation, bleeding, penetration, cicatricial-ulcerative stenosis. Absolute and relative indications for surgical treatment.
30. Classification of functional bowel disorders (ICD-X, Rome Consensus). Diagnostic criteria. Epidemiology and causes of functional intestinal disorders. Bristol stool form scale.
31. Irritable bowel syndrome, diagnostic criteria, subtypes. The volume of patient surveys in suspected irritable bowel syndrome. "The symptoms of anxiety." Treatment of irritable bowel syndrome.

32. Principles of diet therapy for functional bowel disorders. The value of dietary fibre in human nutrition. Classification of drugs that affect intestinal motility. Side effects. The algorithm implementation.
33. Concepts of medical microecology. Bacterial overgrowth syndrome. Drugs used to restore the normal intestinal microflora.
34. Chronic non-specific inflammatory bowel disease - diagnostic criteria and differential diagnosis. Indices of activity of ulcerative colitis and Crohn's disease. The principles of treatment.
35. Celiac disease: clinical, diagnostic, morphological stage clinical variants. The principles of treatment. Secondary enteral insufficiency (maldigestion and malabsorption syndrome).
36. Chronic cholecystitis. Cholangitis. Classification, aetiology, pathogenesis, clinical features, diagnostic, treatment.
37. Functional gall-bladder disorders. Rome Consensus. Diagnostic criteria. The principles of diagnosis and treatment.
38. Chronic pancreatitis: aetiology, pathogenesis, clinical features. The principles of diagnosis and treatment of pancreatic pain and steatorrhea. The use of pancreatic enzyme preparations.
39. The causes and mechanisms of liver damage. The classifications of diffuse liver disease. The value of liver biopsy, ultrasound, radionuclide and immunological methods in diagnosis and differential diagnosis of diffuse liver disease. The index value of the histological activity of hepatitis and liver fibrosis stage in predicting disease. Biomarkers of liver fibrosis and elastography in the diagnosis of liver fibrosis stages.
40. Features of viral and autoimmune hepatitis. The principles of diagnosis and treatment.
41. Alcoholic liver disease - the principles of diagnosis and treatment. The social significance of diseases associated with alcohol abuse.
42. Diseases caused by congestion of the liver iron, copper (hemochromatosis, Wilson's disease). The principles of diagnosis and treatment.
43. The principle of the laboratory Fovert's syndromes with diffuse liver diseases (cytolysis, mesenchymal-inflammatory, cholestatic, jaundice, hepatocellular failure).
44. Cirrhosis of the liver - definition and classification. Clinical manifestations and complications of liver cirrhosis - concerted international recommendations on management. The scale of the severity of liver cirrhosis in Child-Pugh-Turcotte.
45. Primary and secondary biliary cirrhosis: aetiology, pathogenesis, clinical features, treatment.
46. Emergency conditions in hepatology: bleeding from the varices of the oesophagus, stomach and rectum, portosystemic encephalopathy, ascites, peritonitis, hepatorenal syndrome.
47. Aetiology and pathogenesis of acute pyelonephritis. Classification (clinical, ICD-X). The clinical picture of pyelonephritis. Diagnostic (general and special urinalysis, determination of bacteriuria, cystochromoscopy. Excretory and retrograde pyelography, radioisotope renography, angiography, ultrasound and radionuclide renal scan).
48. Aetiology and pathogenesis of chronic pyelonephritis. Classification (clinical, ICD-X). The clinical picture of pyelonephritis. Diagnostic.
49. Treatment of pyelonephritis: the regime, diet, antibiotics and uroseptics, indications for surgical treatment. Clinical supervision and prevention of pyelonephritis.
50. Current views on the aetiology and pathogenesis of glomerulonephritis. The classification of glomerulonephritis (including morphological forms, the ICD-X). The clinical picture of glomerulonephritis (major clinical syndromes, clinical forms and variants of the course). Clinical examination of patients with glomerulonephritis. Primary and secondary prevention.
51. Principles of treatment of glomerulonephritis: treatment, diet, aetiological treatment, glucocorticoids, immunosuppressants, antiplatelet agents, anticoagulants and other medications, symptomatic therapy, treatment of complications. Outcomes. Forecast.
52. Acute kidney injury (aetiology, pathogenesis, staging, clinical picture, diagnosis and treatment).

53. The aetiology and pathogenesis of chronic renal failure. The main clinical symptoms of chronic renal failure. Stages of the course and classification.
54. Treatment of chronic renal failure (mode, diet, water-salt regime, the correction of acidosis, detoxification therapy, the possibility of symptomatic treatment). Hemodialysis and peritoneal dialysis. Transplantation of kidneys.
55. Acute bronchitis. Definition. Prevalence. Aetiology. Pathogenesis.
56. Acute bronchitis. Clinical presentation. Diagnosis. Differential diagnosis. Treatment and prevention.
57. Chronic bronchitis and chronic obstructive pulmonary disease. Definition. Prevalence. Classification. Aetiology. Pathogenesis. Mechanisms of obstruction. Risk factors. Clinical presentation and clinical variants. Differential diagnosis. Principles of treatment and prevention.
58. Chronic obstructive pulmonary disease. Functional respiratory parameters at different stages of the disease. Differential diagnosis. Complications. Treatment objectives and staging. Basic therapy: groups of broncholytics. Indications for corticosteroid therapy. Prevention of attacks.
59. Bronchial asthma. Aetiology. Exogenous and endogenous causative factors. Concept of inductors and trigger factors. Role of allergological evaluation and anti-allergic treatment. Mechanism of the development of asthma attack. Classification. Diagnosis. Algorithm of spirographic evaluation to reveal reversible airway obstruction. Clinical presentation of an asthma attack. Severe asthma attack. Complications. Prognosis. Indications for hospitalization.
60. Medicamentous treatment of asthma attack. Bronchial asthma. Long-term control. Treatment of a severe asthma attack. Inhalation therapy. Types of inhalers. Nebulized therapy. Criteria for well-controlled bronchial asthma. Prophylaxis.
61. Pneumonia. Definition. Prevalence. Aetiology. Pathogenesis. Ways of penetration of causative agents. Classification. Clinical presentation. Severity criteria. Clinical differences in the course of pneumonia determined by the causative agent and immunity.
62. Pneumonia. Differential diagnosis. Laboratory, instrumental, radiologic findings. Primary and secondary types of pneumonia. Diagnosis of complications.
63. Pneumonia. Principles of therapy. Indications for hospitalization. Principles of antibacterial therapy. Antiviral medications. Indications for corticosteroid therapy. Symptomatic treatment. Recovery criteria. Prognosis. Outcomes.
64. Pleural effusion. Aetiology and pathogenesis. Mechanisms of effusion into the pleural cavity. Clinical and laboratory characteristics of exudate and transudate. Classification of pleuritis. Clinical presentation, diagnosis and course of the development. Indications and technique for pleural tap. Laboratory evaluation of the effusion. Differential diagnosis. Complications and outcomes. Treatment. Indications for surgery. Prophylaxis.
65. Suppurative lung diseases. Definition. Classification of suppurative lung diseases. Risk factors for suppurative lung diseases. Mechanism of development of infection. Principles of treatment. Indications for operative treatment. Outcomes. Prognosis. Prophylaxis.
66. Clinical presentation and diagnosis of acute and chronic lung abscess. Lung gangrene. Differential diagnosis of lung abscess, tuberculosis cavern, bronchiectasis, purulent cysts and hypoplasias, empyema of pleura, mycotic suppuration, cavitating forms of cancer.

Head of the Department

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