EVALUATION MATERIALS FOR INTERIM CERTIFICATION FOR THE DISCIPLINE

Faculty therapy, Term 7, 8

Curriculum	31.05.01 General Medicine
Qualification	General Medicine
Form of education	Full-time
Department	Internal diseases

STANDARD TASKS FOR CONTROL WORK

Term 7, 8

Section 1.General part

1. Examination of the patients. Keeping medical documentation in the polyclinics and hospitals.
2. Medical History: structure, rules of registration.

Section 2. Respiratory diseases

1. Pneumonia. Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. Principles of therapy. Complications. Prevention.
2. Bronchitis. Bronchiectasis. Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. Principles of therapy. Complications. Prevention.
3. Bronchial asthma. Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. Principles of therapy. Complications. Prevention.
4. Chronic obstructive pulmonary disease (COPD). Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention. Forecasts.
5. Acute pulmonary abscess. Necrotizing pneumonia. Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention.

Section 3. Diseases of the cardiovascular system

1. Atherosclerosis. Definition. Focal and diffuse atherosclerotic cardiosclerosis.Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention. Forecasts.
2. Coronary artery disease. Angina pectoris. Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention. Forecasts.

3. Essential hypertension. Pathogenesis of increased blood pressure. Features of the clinical picture. Laboratory and instrumental diagnostics. Differential diagnosis. Drug and surgical treatment. Complications. Forecast.
4. Acute coronary syndrome and myocardial infarction. Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. ECG diagnosis. Differential diagnosis. Principles of therapy. Early and late complications of myocardial infarctions. Prevention. Forecasts.
5. Infective endocarditis. Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention. Forecasts.
6. Rheumatism. Acute rheumatic fever. Definition. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Treatment.
7. Mitral stenosis. Aortic stenosis. Insufficiency of the mitral and aortal valves. Hemodynamic disorders. Instrumental diagnostics. Clinical picture. Options flow. Drug and surgical treatment. Complications. Forecasts.
8. Heart arrhythmia. Extrasystoles. Tachyarrhythmias and bradyarrhythmias. Conduction disturbance. Atrial fibrillation. Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Adams-Stokes syndrome. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention. Forecasts.
9. Chronic heart failure. Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention.

Section 4. Gastroenterology

1. Chronic diseases of oesophagus, stomach and duodenum. Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention. Forecasts.
2. Gastric and duodenum ulcer. Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention.
3. Chronic enteritis and colitis. Functional disorders of the colon. Colon cancer. Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention. Forecasts.
4. Biliary dyskinesia. Chronic acalculous cholecystitis. Definition. Epidemiology. Etiology and pathogenesis. Clinical picture. Options flow. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention. Forecasts.
5. Chronic cholangitis. Chronic hepatitis. Gilbert disease. Definition. Epidemiology. Etiology and pathogenesis. Clinical picture. Options flow. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention. Forecasts.
6. Cirrhosis and hepatic cancer. Definition. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention. Forecasts.
7. Human helminthosis. Opisthorchiasis. Definition. Epidemiology. Etiology and pathogenesis. Clinical picture. Options flow. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention. Forecasts.

Section 5. Nephrology

1. Acute and chronic glomerulonephritis. Chronic pyelonephritis. Definition. Epidemiology. Etiology and pathogenesis. Clinical variants of the course. The main clinical syndromes. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention. Forecasts.

2. Chronic kidney disease (CKD). Definition. Epidemiology. Etiology and pathogenesis. Clinical picture. Options flow. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prevention. Forecasts.

Section 6. Hematology diseases

1. Anemia. Iron deficiency anemia Epidemiology. Etiology. Hemodynamic disorders. Clinic. Instrumental diagnostics. Differential diagnosis. Complications. Indications for surgical treatment

1.2 Sample of Case study:
№1: Diseases of the respiratory system

Sample

Case study №1

Male, 40 years old, locksmith. He complains to the shortness of breath when walking, fever up to 38 °C, chest pain, and cough with sputum, headache, malaise, weakness, and sweating.

From the anamnesis of the disease. Acutely ill. Three days ago at work he felt chills, fever up to 39 °C, cough with a small amount of sputum, sweating, and weakness. Taking antipyretics gave no effect. After 2 days, he noted the shortness of breath during exercising, increased weakness, and the patient went to the district doctor, who sent him to the hospital.

Objectively. Satisfactory condition. Consciousness is clear. The patient is excited. BMI is 27 kg/m2. The skin is pale, cyanosis of the lips. Peripheral lymph nodes are not enlarged. The shape of the chest is correct; the right half of the chest lags is far behind when breathing. In the right lower parts of the lungs is swelling of intercostal spaces. On percussion of the lower parts of the right lung (from XI to IX ribs), dull percussion sound is heard. On auscultation of the right lower parts of the lungs, breathing is not carried out. The respiration rate is 24 per minute. Heart tones are muffled, the rhythm is wrong. Systolic murmur is at the top. BP is 150/100 mm. hg art. Heart rate is 120 per minute. Pulse is 120 beats/min. The abdomen is soft, painless. The size of the liver by Kurlov is 9;8;7. Swelling is not observed. Defecation is normal.

Laboratory and instrumental studies:

Common blood test: Hb - 115 g/l; red blood cells - 4.7×10^{12}/l; leukocytes - 4.6×10^{9}/l; ESR - 40 mm/h.

Biochemical blood test: ALAT – 22 mol/l; AAT – 24 mol/l.

X-Ray: intense homogeneous darkening in the lower part of the right lung to the level of the IVc.

Pleural effusion: relative density-1023; protein-4.1 g/l; leukocytes – 16-20 in p/h; erythrocytes 5-7 in p/h; mesothelium 3-6 in p/h; leukocyte formula: neutrophils – 97%, lymphocytes – 3%.

Instructions

1. The formulation of the clinical diagnosis:
- major disease;
- complications of the underlying disease;
- concomitant disease;
- complications of comorbidities;
- functional state.
2. Plan for the additional laboratory and instrumental methods of examination.
3. Tactics of urgent and planned therapeutic measures (drug and non-drug).
4. Forecast.

Answer:

1. Preliminary diagnosis:
- underlying disease: community-acquired pneumonia in the lower lobe of the right lung.
- complications of the main disease: exudative pleurisy, respiratory failure 1.
- concomitant diseases: mild anemia, unspecified.

2. Additional examination plan: General blood test, General urine analysis in dynamics, biochemical blood test (CRP, glucose, total bilirubin, lipidogram, transaminase, creatinine, urea, total protein, proteinogram, ionogram, immunogram, TIBC, ferritin), blood gas composition, sputum analysis, BC and atypical cells, sputum analysis with determination of microflora and its sensitivity to antibiotics, spirogram, ECG, and if necessary - serological examination - determination of viral antigen titer, bronchoscopy, lung MRI.

3. Treatment at the hospital. Principles of treatment: antibacterial therapy with broad-spectrum antibiotics for 5 days, then sensitivity, bronchodilator, toxic-allergic and nodular therapy: euphyllinum, bromhexine; detoxification therapy; glucose and salt solutions, rheopolyglukin, plasma; immunocorrecting therapy (with the prolonged course): glucocorticoids, interferon, levamisolum, immunoglobulins.

Symptomatic treatment: antipyretic. The development of heart failure: cardiac glycosides, diuretics, vascular, sulfocamphocaine, cordiamin; with the development of infectious-toxic shock: haemodes, albumin, prednisone, sympathomimetic, correction of metabolic acidosis, suppression of DIC-syndrome; when you exit the acute stage of the disease: physiotherapy treatment (inhalation of alkalies, bronchodilators, calcium chloride, electrophoresis, UHF, inductotherm, magnet, halo chamber), physical therapy.

4. Favorable.

1.3 Sample of Tests.

Purpose of digitalis in atrial fibrillation is to:
a) Depress vagus nerve
*b) Slow ventricular rate
c) Slow atrial rate
d) Restore sinus rhythm

P-wave is absent in
a) Wolff-Parkinson-White syndrome
*b) Atrial fibrillation
c) Ventricular extrasystole
d) Atrial Tachycardia

Duration of pain in angina is
*a) 1-10 mins
b) 5-30 mins
c) 30-60 mins
d) > 1 hour

1.4. Sample of case history:

The student chooses the nosological form, writes the history of the disease (with the further presentation) according to the proposed scheme.

The main stages of writing educational history:

Title page (separate page)

1. Passport part.
2. Complaints: the main complaints and those found when examining the organ systems.
3. Anamnesis of the main and concomitant diseases.
4. Anamnesis of life.
5. Data from the objective survey of the patient.
6. Justification of the preliminary diagnosis and its formulation.
7. Survey plan.
8. Data of laboratory and instrumental researches, consultations.
9. Final clinical diagnosis (rationale and formulation).

10. Treatment of the underlying disease (only for the educational history of the disease).Treatment of the patient and his rationale.
11. The diary of supervision.
12. Epicrisis.

1.5. Analyze of patient's electrocardiograms (ECG):

I. Analysis of heart rate and conductivity:
1) assessing heart rate
2) counting the number of heartbeats
3) determining the excitation source
4) evaluating the conductivity function

II. Determination of the heart turns around the anteroposterior, longitudinal and transverse axes.
1) determining electric axis of the heart.
2) determining the electrical position of the heart.

III. Analysis of the atrial R peak.

IV. Analysis of the ventricular complex QRS-T:
1) Analysis of the QRS complex
2) Analysis of the RS-T segment
3) Analysis of T wave
4) QT interval analysis

V. ECG conclusion

1.6. Essay Topics

1. Pneumonia in the hospital
2. Pulmonary edema
3. Lung cancer in old age
4. Complication of myocardial infarction
5. Cardiogenic shock
6. Status asthmaticus
7. Hypertensive crisis

Stage: midterm assessment (credit) 7th term

Midterm assessment is carried out in the form of credit. Tasks for the credit include case history of the disease.

1. Case history of the disease

1. Passport part.
2. Complaints: the main complaints and those found when examining the organ systems.
3. Anamnesis of the main and concomitant diseases.
4. Anamnesis of life.
5. Data from the objective survey of the patient.
6. Justification of the preliminary diagnosis and its formulation.
7. Survey plan.
8. Data of laboratory and instrumental researches, consultations.
9. Final clinical diagnosis (rationale and formulation).
10. Treatment of the underlying disease (only for the educational history of the disease).Treatment of the patient and his rationale.
11. The diary of supervision.
12. Epicrisis.

Midterm assessment (exam) 8th term

Midterm assessment is carried out in the form of exam. The exam is held in the oral form. Tasks for the exam include two questions for Oral quiz and one Case – study.

List of points for **oral quiz:**

1. Pneumonia: Definition. Etiology. Pathogenesis. Clinic.
2. Pneumonia: Classification. Laboratory and instrumental methods of diagnosis. Principles of treatment.
3. Chronic bronchitis: Definition. Etiology. Pathogenesis. Clinic.
4. Chronic bronchitis: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
5. COPD: Definition. Etiology. Pathogenesis. Clinic
6. COPD: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
7. Bronchial asthma: Definition. Etiology, main mechanisms of pathogenesis. Clinic.
8. Bronchial asthma: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
9. Asthmatic status: Clinic. Emergency diagnostic measures. Principles of intensive therapy.
10. Chronic kidney disease: Definition of the concept. Etiology. Clinic.
11. Lung cancer: Risk factors. Pathogenesis. Clinic.
12. Lung cancer: Classification. Laboratory and instrumental methods of diagnosis. Principles of treatment.
13. Rheumatism: acute rheumatic fever. Definition. Etiology, main mechanisms of pathogenesis. Clinic.
14. Rheumatism: acute rheumatic fever. Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
15. Atherosclerosis: Definition. Etiology. Pathogenesis. Clinic.
16. Atherosclerosis: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
17. Ischaemic heart disease: Definition. Causes and risk factors. Pathogenesis. Classification. Diagnosis.
18. Ischaemic heart disease: Tension angina: Classification. Laboratory and instrumental criteria of diagnosis. Principles of treatment.
19. Myocardial infarction: Definition. Clinic. Diagnosis.
20. Myocardial infarction: Emergency treatment. Principles of treatment in the remote period.
21. Myocardial infarction: Early and late complications. Classification of acute heart failure.
22. Cardiogenic shock. Definition. Classification. Clinic. Diagnosis. Principles of treatment.
23. Pulmonary oedema. Definition. Classification. Clinic. Diagnosis. Principles of treatment.
24. Hypertensive disease: Definition. Etiology. Pathogenesis. Clinic.
25. Hypertensive disease: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
26. Hypertensive crisis: Definition. Classification. Tactics of patient management.
27. Mitral valve insufficiency: definition, etiology. Changes in haemodynamics. Clinic. Treatment.
28. Mitral stenosis (stenosis of the left atrioventricular orifice). Etiology. Haemodynamic changes. Clinic. Treatment.
29. Aortic valve insufficiency. Organic and relative insufficiency. Etiology. Haemodynamic changes. Clinic. Treatment.
30. Stenosis of the aortic orifice. Etiology. Haemodynamic changes. Clinic. Treatment. Indications for surgical treatment. Prognosis.
31. Chronic heart failure: Definition. Etiology. Pathogenesis. Clinic.
32. Chronic heart failure: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.

33. Arrhythmias. Etiology. Pathogenesis. Classification. Laboratory and instrumental methods of diagnostics.
34. Atrial fibrillation. Clinic. ECG-criteria. Principles of treatment.
35. Extrasystole. Clinic. ECG-criteria. Principles of treatment.
36. Atrioventricular conduction disorders. Clinic. ECG-criteria. Principles of treatment.
37. Intraventricular conduction disorders. Clinic. ECG-criteria. Principles of treatment.
38. Infective endocarditis: Definition. Etiology. Pathogenesis. Clinic.
39. Infective endocarditis: Laboratory and instrumental diagnostic methods. Principles of treatment.
40. Chronic kidney disease: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment. Indications for haemodialysis.
41. Iron deficiency anaemia: Definition. Etiology. Pathogenesis. Clinic.
42. Iron deficiency anaemia: Classification. Laboratory and instrumental methods of diagnosis. Principles of treatment.
43. GERD: Definition of gastroesophageal reflux disease. Etiology. Pathogenesis. Clinic. Diagnosis. Treatment.
44. Esophagitis: Definition. Etiology. Pathogenesis. Clinic. Diagnosis. Treatment.
45. Chronic gastritis: Definition. Etiology. Pathogenesis. Clinic.
46. Chronic gastritis: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
47. Peptic ulcer disease of the stomach and duodenum: Definition. Etiology. Pathogenesis. Clinic.
48. Peptic ulcer disease of the stomach and duodenum: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
49. Peptic ulcer disease of the stomach and duodenum: Complications. Peculiarities of clinical picture. Principles of treatment.
50. Gastric cancer. Risk factors. Classification. Clinic. Diagnosis. Treatment.
51. Chronic hepatitis: Definition. Etiology. Pathogenesis. Clinic.
52. Chronic hepatitis: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
53. Chronic cholecystitis: Definition. Etiology. Pathogenesis. Clinic.
54. Chronic cholecystitis: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
55. Chronic pancreatitis: Definition. Etiology. Pathogenesis. Clinic.
56. Chronic pancreatitis: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
57. Dysfunction of biliary tract and sphincter of Oddi: Definition. Etiology. Pathogenesis. Clinic of hypo- and hyperkinetic disorders.
58. Dysfunction of biliary tract and sphincter of Oddi: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
59. Liver cirrhoses: definition. Etiology. Pathogenesis. Clinic.
60. Cirrhoses of the liver: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
61. Gallstone disease. Etiology. Pathogenesis of gallbladder stone formation. Clinic. Diagnosis. Principles of treatment.
62. Colorectal cancer. Risk factors. Clinic. Diagnosis. Principles of treatment.
63. Chronic opisthorchiasis: Path of infection. Classification. Clinical picture.
64. Chronic opisthorchiasis: Diagnosis. Principles of treatment. Prophylaxis.
65. Acute glomerulonephritis: Definition. Etiology. Pathogenesis. Clinic.
66. Acute glomerulonephritis: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.
67. Chronic glomerulonephritis: Definition. Etiology. Pathogenesis. Clinic.

68. Chronic glomerulonephritis: Classification. Laboratory and instrumental methods of diagnostics. Principles of treatment.

Sample of Case-study:

Male, 65 years old, cook. He complains to the fever up to 39 °C, shortness of breath when walking, chest pain, and cough with sputum, headache, malaise, sweating.

From the anamnesis of the disease. Acutely ill. Three days ago at work he felt chills, fever up to 39-40 °C, cough with a small amount of sputum, sweating, and weakness. Taking antipyretics gave no effect. After 2 days, he noted the shortness of breath during exercising, increased weakness, and the patient went to the district doctor, who sent him to the hospital.

Objectively. Satisfactory condition. Consciousness is clear. The patient is excited. BMI is 35 kg/m2. The skin is pale, cyanosis of the lips. Peripheral lymph nodes are not enlarged. The shape of the chest is correct; the right half of the chest lags is far behind when breathing. In the right lower parts of the lungs is swelling of intercostal spaces. On percussion of the lower parts of the right lung (from XI to IX ribs), dull percussion sound is heard. On auscultation of the right lower parts of the lungs, breathing is not carried out. The respiration rate is 18-20 per minute. Heart tones are muffled, the rhythm is wrong. Systolic murmur is at the top. BP is 135/90 mm. hg art. Heart rate is 120 per minute. Pulse is 120 beats/min. The abdomen is soft, painless. The size of the liver by Kurlov is 9;8;7. Swelling is not observed. Defecation is normal.

Laboratory and instrumental studies:

Common blood test: Hb - 135 g/l; red blood cells - 4.7×10^{12}/l; leukocytes - 15×10^{9}/l; ESR - 45 mm/h.

Biochemical blood test: ALAT – 55 mol/l; AAT – 58 mol/l.

X-Ray: intense homogeneous darkening in the lower part of the right lung to the level of the IVc.

Pleural effusion: relative density-1025; protein-2.1 g/l; leukocytes – 8-10 in p/h; erythrocytes 2-4 in p/h; mesothelium 3-6 in p/h; leukocyte formula: neutrophils – 97%, lymphocytes – 3%.