CONTROL AND MEASURING INSTRUMENTS

Questions of the program for the midterm control 1

EP name	**6B10101 General Medicine**
Discipline Code:	**BGMP 5301**
Discipline name:	**Basics of general medical practice**
Amount of hours/credits	**180/6**
Course/ Semester	**5/9**

Compiled by: _____ Abdraimova S.E.

1. Classification and diagnostic criteria for unstable angina (ESC/ACCF/AHA/WHF, 2007).
2. Interpretation of laboratory and instrumental research results and their clinical significance:

Complete blood count: Hb 132 g/l, erythrocytes 3.8x102/l, color index 0.96, leukocytes 14x109/l, band 8%, segmented 52%, eosinophils 1%, lymphocytes 32%, monocytes 7%, ESR 23 mm/h.
Complete urine analysis: color light yellow, specific gravity 1010, protein 0.03 g/l, glucose - no, squamous epithelium - a little, leukocytes 0-1 in the field of vision, erythrocytes - no, cylinders - no, mucus - a little.
Blood biochemistry: total protein 64 g/l, urea 5.4 mmol/l, potassium 4.6 mmol/l, sodium 135 mmol/l, ALT 28 U/l, AST 21 U/l, C-reactive protein ++
Sputum culture for flora: Staphylococcus aureus
Chest X-ray: increased transparency of the lung fields, low position of the diaphragm, increased perihilar pulmonary pattern are noted. The heart shadow is unchanged. The pulmonary sinuses are free.

3. **Situational task:**

A patient comes to the doctor with complaints of fever of 37.60 C, migrating pain in large joints. The disease began about three weeks ago, but due to constantly changing complaints, they did not consult a doctor. From the anamnesis: during the year she suffered three tonsillitis and suffered from colds several times. At present, she is bothered by pain in the right knee and left ankle joints, the skin above them is slightly hyperemic, edematous; hot to the touch, movements in the joints are painful. On the skin of the chest there are dim pink spots with clearings in the center. Make a preliminary diagnosis and draw up a plan of diagnostic and therapeutic measures.

4. Diagnostic criteria for acute rheumatic fever.
5. Interpretation of the results of laboratory and instrumental studies and their clinical significance:

Complete blood count: erythrocytes -5.8, hemoglobin - 187 g/l, leukocytes - 12 thousand, ESR - 3 mm/hour.
Spirometric study: FEV1 = 45% of the expected value
ECG: presence of high-amplitude, pointed P waves in leads II, III, aVF, V1, P wave duration does not exceed 0.1 s. R amplitude in V1 = 8 mm, RV1+SV5.6 = 12 mm, electrical axis shifted to the right (angle α+100).

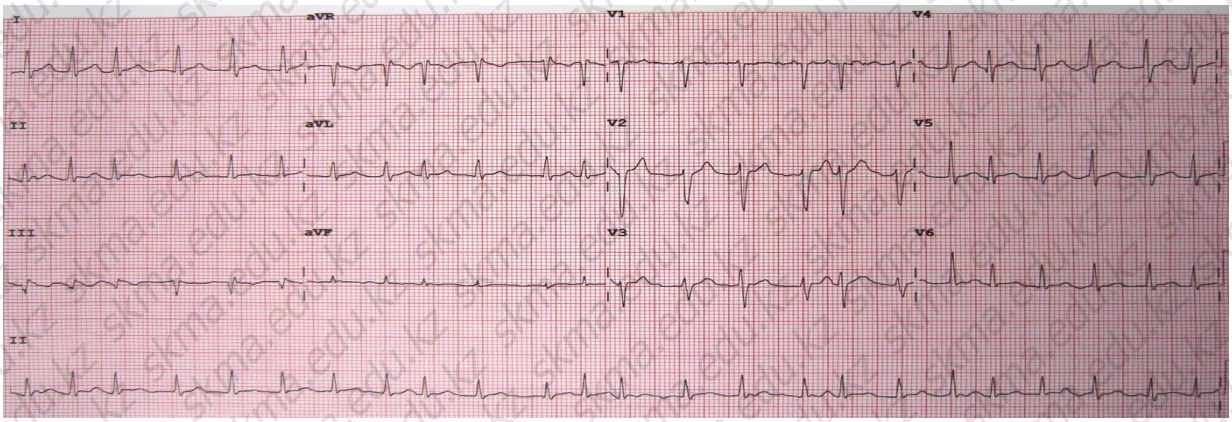
6. Situational task:

A patient came to the doctor complaining of episodes of night attacks of intense pressing pain in the chest, which pass on their own within 2-3 minutes. There are no changes on the ECG taken outside the attack. From the anamnesis, attacks of pain most often occur at night, recurring every 10-15 minutes. Determine the form of unstable angina and develop tactics for managing this patient.

7. Criteria for determining the severity of pneumonia in adults.

8. Interpretation of the results of laboratory and instrumental studies and their clinical significance:

Lipogram: total cholesterol – 7.2 mmol/l, LDL – 4.0 mmol/l, HDL – 0.9 mmol/l
ECG:



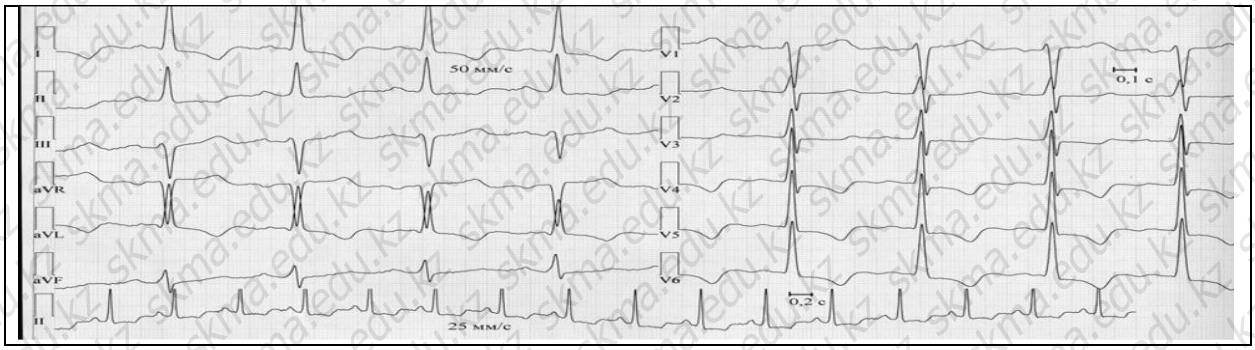
9. Situational task:

A 29-year-old patient has 1-2 attacks of expiratory suffocation per month, mainly due to certain odors, for the relief of which he sometimes uses salbutamol inhalations. During an attack, dry wheezing is heard in the lungs. During examination between attacks, FEV1 is 80-85% of the expected value. Make a preliminary diagnosis and develop a plan for further patient management.

10. Criteria for stratification of hypertension risk.

11. Interpretation of laboratory and instrumental examination results and their clinical significance:

Lipogram: total cholesterol 5.7 mmol/l, triglycerides – 2.4 mmol/l, fasting blood glucose – 6.5 mmol/l
ECG:



12. Situational task:

A 35-year-old patient complains of heartburn, pain that occurs 2-3 hours after eating, often on an empty stomach and at night. The pain goes away after drinking milk. Palpation of the abdomen reveals pain in the epigastric region and around the navel. The patient has a pronounced asthenovegetative syndrome. Make a preliminary diagnosis and draw up a plan of diagnostic and therapeutic measures.

13. Criteria for diagnosing and determining the severity of chronic obstructive pulmonary disease

14. Interpretation of the results of laboratory and instrumental studies and their clinical significance:

OAK: leukocytes - 15 thousand, ESR 30 mm/hour.
Rheumatology tests: alpha-globulin -16%, gamma-globulin-20%, fibrinogen -6 g/l, C-reactive protein +++, seromucoid - 300 units.
Immunological tests: ASL-O -1000 units, DFA-0.300 units, antihyaluronidase-1200 units.

15. Situational task:

A 23-year-old man called a doctor to his home, complaining of a fever up to 38oC for 3 days, cough with yellow-green sputum, weakness, sweating. From the anamnesis: the disease is associated with hypothermia. Objectively: the skin is pale, respiratory rate is 20 per minute, dullness of percussion sound on the right below the angle of the scapula, small bubbling moist rales are heard on auscultation in the same place. Develop a plan for examining the patient to clarify the diagnosis and make a plan for treatment and dynamic observation.

16. Diagnostic criteria and treatment of ARF.

17. Interpretation of the results of laboratory and instrumental studies and their clinical significance:

Research: Serology	Research Results
Helicobacter pylori immunoglobulin G	**1,1 ++**
Helicobacter pylori immunoglobulin M	**54,95**++

18. Situational task:

A 45-year-old man consulted a general practitioner with complaints of headache, nausea, and pressing pain in the heart area. He has been under medical supervision for two years due to arterial

hypertension. Blood pressure rises to a maximum of 150/95 mm Hg. Results of clinical and laboratory tests: cholesterol 7.2 mmol/l. On the ECG: Signs of left ventricular hypertrophy. Determine the degree and risk group of arterial hypertension and make a treatment plan.

19. Diagnosis and treatment of iron deficiency anemia

20. Interpretation of laboratory and instrumental test results and their clinical significance:

Complete blood count: leukocytes 12*109 g/l, ESR-27 mm/hour
Urine analysis:
Color - brownish
Transparency - cloudy
Smell - sharp
pH>7
Density>1.018 g/l
protein 0.5%
erythrocytes -3-4 in the field of view
leukocytes -15-20 in the field of view
epithelial cells 18-22 in the field of view
bacteria +++
Nechiporenko test: leukocytes - 12750; erythrocytes -1000;
Ultrasound of the kidneys: asymmetry of kidney size, deformation of the renal pelvic system, diffuse acoustic heterogeneity of the renal parenchyma

21. Diagnosis and treatment of chronic cholecystitis.

22. Interpretation of laboratory and instrumental examination results and their clinical significance:

Complete blood count:
erythrocytes - 2.6*1012/l
leukocytes - 4.5*109/l
platelets - 190*109/L
color index - 0.65
hemoglobin - 78 g/l
reticulocytes - 12%
average diameter of erythrocytes decreased
morphological changes in erythrocytes - microcytosis combined with anisocytosis and poikilocytosis

23. Situational task:

An 18-year-old female patient called a general practitioner to her home complaining of a fever over 380 degrees, chills, weakness, general malaise, loss of appetite, and headache. She has considered herself ill for a week, has not seen a doctor, and has taken antipyretics at home. She

notes frequent urination and has developed pain in the right lumbar region. She associates the disease with hypothermia. Make a preliminary diagnosis and draw up a plan of diagnostic and therapeutic measures.

24. Diagnostic criteria and principles of treatment of gastric ulcer and duodenal ulcer.

25. Interpretation of laboratory and instrumental examination results and their clinical significance:

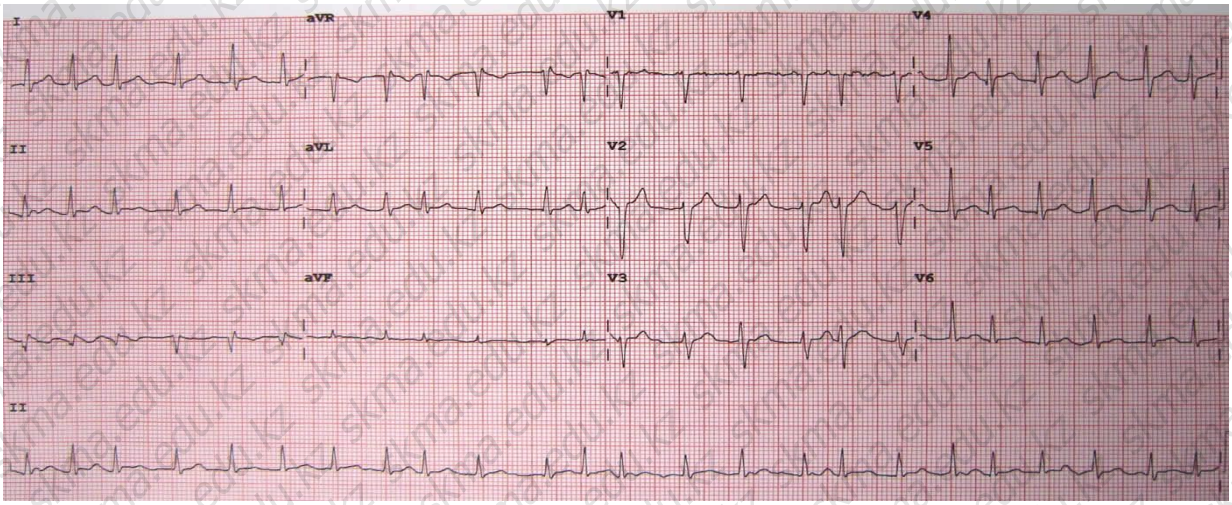
Показатель	Результаты
билирубин	18 мкмоль/л
холестерин	9,0 ммоль/л
АСТ	26 ЕД
АЛТ	12 ЕД
креатинин	85 мкмоль/л
мочевина	8,0 ммоль/л
глюкоза	8,3 ммоль/л

26. Criteria for determining the severity of bronchial asthma and principles of step therapy.

27. Interpretation of the results of laboratory and instrumental studies and their clinical significance:

Lipogram: total cholesterol - 7.2 mmol/l, LDL - 4.0 mmol/l, HDL - 0.9 mmol/l

ECG:



30 .Situational task:

A 45-year-old man consulted a general practitioner with complaints of headache, nausea, and pressing pain in the heart area. He has been under medical supervision for two years due to arterial hypertension. His blood pressure rises to a maximum of 150/95 mm Hg. Results of clinical and

laboratory tests: cholesterol 7.2 mmol/l. On the ECG: Signs of left ventricular hypertrophy. Determine the degree and risk group of arterial hypertension and make a treatment plan.

31. Diagnostic criteria for hepatitis and liver cirrhosis.

32. Interpretation of laboratory and instrumental examination results and their clinical significance:

Indicator	Results
bilirubin	18 мкмоль/л
cholesterol	9,0 ммоль/л
AST	26 ЕД
ALT	12 ЕД
creatinine	85 мкмоль/л
urea	8,0 ммоль/л
glucose	8,3 ммоль/л

33. Situational task:

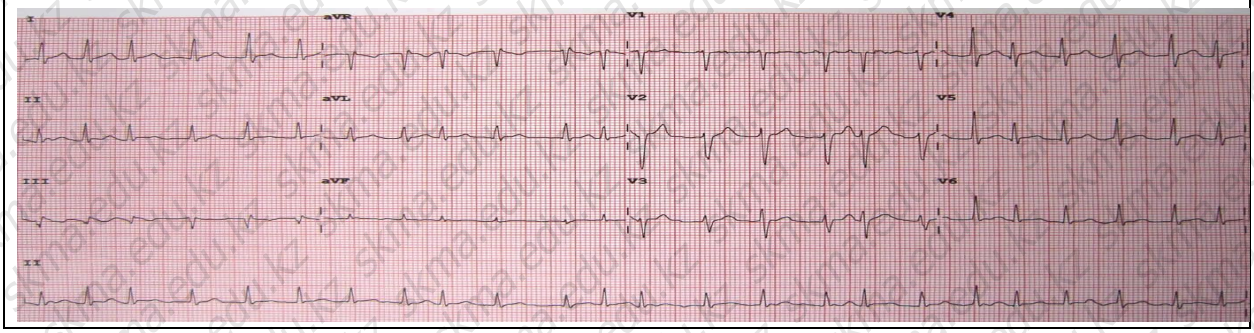
A patient came to the doctor complaining of episodes of night attacks of intense pressing pain in the chest, which pass on their own within 2-3 minutes. There are no changes on the ECG taken outside the attack. From the anamnesis, attacks of pain most often occur at night, recurring every 10-15 minutes. Determine the form of unstable angina and develop tactics for managing this patient.

34. Diagnostic criteria for peptic ulcer disease.

35. Interpretation of the results of laboratory and instrumental studies and their clinical significance:

Lipogram: total cholesterol - 7.2 mmol/l, LDL - 4.0 mmol/l, HDL - 0.9 mmol/l

ECG:



36. Situational task:

A 43-year-old female patient is concerned about weight gain, weakness, facial swelling, dry skin, constipation, amenorrhea, and memory loss. The skin is dry and cold. The thyroid gland is not palpable. Blood pressure is 90/60 mm Hg, pulse is 52 per minute. Make a preliminary diagnosis and draw up a plan of diagnostic and therapeutic measures.

37. Diagnostic criteria for COPD.

38. Interpretation of laboratory and instrumental research results and their clinical significance:

Complete blood count: leukocytes 12*109 g/l, ESR-27 mm/hour
Urine analysis:
Color - brownish
Transparency - cloudy
Smell - sharp
pH>7
Density>1.018 g/l
protein 0.5%
bacteria +++
Nechiporenko test: leukocytes - 12800; erythrocytes -1000;
Ultrasound of the kidneys: asymmetry of kidney size, deformation of the renal pelvic system, diffuse acoustic heterogeneity of the renal parenchyma

39. Situational task:

A 50-year-old patient complains of a persistent cough with a small amount of mucous sputum, dyspnea on exertion. History: smoker for over 15 years. Objectively: the chest is barrel-shaped, the supraclavicular spaces are bulging. Weakening of the vocal fremitus on both sides. Percussion: box-shaped sound. Auscultation: harsh breathing with an extended exhalation, wheezing in the lateral sections, increasing with forced exhalation. Make a preliminary diagnosis and draw up a plan of diagnostic and therapeutic measures.

40. Diagnostic criteria for acquired heart defects.

41. Interpretation of the results of laboratory and instrumental studies and their clinical significance:

Complete blood count:
leukocytes 12*109 g/l,
ESR-27 mm/hour
Urine analysis:
Color - brownish
Transparency - cloudy
Smell - sharp
pH>7
Density>1.018 g/l
protein 0.5%
erythrocytes -3-4 in the field of view
leukocytes -15-20 in the field of view
epithelial cells 18-22 in the field of view
bacteria +++
Ultrasound of the kidneys: asymmetry of kidney size, deformation of the renal pelvic system, diffuse acoustic heterogeneity of the renal parenchyma

42. Situational task:

A 29-year-old patient complains of a persistent cough with a small amount of mucous sputum, dyspnea on exertion. History: smoker for over 15 years. Objectively: the chest is barrel-shaped, the supraclavicular spaces are bulging. Weakening of the vocal fremitus on both sides. Percussion: box-like sound. Auscultation: harsh breathing with an extended exhalation, wheezing in the lateral sections, increasing with forced exhalation. Make a preliminary diagnosis and draw up a plan of diagnostic and therapeutic measures.

43. Diagnostic criteria for IHD.

44. Interpretation of the results of laboratory and instrumental studies and their clinical significance:

Complete blood count: Hb 82 g/l, erythrocytes 4.6x1012/l, reticulocytes 12 g/l, platelets 170.0x109/l, leukocytes 7.7x109/l, p/y 11%, s/y 42%, lymphocytes 32%, eosinophils 5%, monocytes 10%, ESR 12 mm/h.

Complete urine analysis: amount 70 ml, relative density 1018, leukocytes 2-3 in the field of vision, erythrocytes not detected, bacteria - in moderate quantities.

Blood for immunoglobulin (Ig)E to cow's milk: 1+.

Microscopic examination of sputum: a significant number of macrophages with hemosiderin inclusions were revealed.

Chest X-ray: a moderate-intensity non-homogeneous darkening of the left lung is noted, multiple focal shadows are visible in the area of the right lung, confluent in places. The roots of the lungs are poorly structured. The shadow of the heart is expanded due to the left sections. The domes of the diaphragm are smooth. The sinuses are free.

45. Situational task:

A 52-year-old patient is bothered by a constant cough with a small amount of mucous sputum, dyspnea on exertion. Objectively: the chest is barrel-shaped, the supraclavicular spaces are bulging. Weakening of the vocal fremitus on both sides. Percussion: a box-like sound. Auscultation: breathing is harsh with an extended exhalation, wheezing in the lateral sections, increasing with forced exhalation. Make a preliminary diagnosis and draw up a plan of diagnostic and therapeutic measures.

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