**Discipline:** Basics of general medical practice
**Code:** BGMP 5301
**Speciality:** 6B10101 «General Medicine»
**Amount of hours/credits:**
**Cours:** 5
**Term:** IX

# Methodical instructions for SIW

**Compiled by Abdraimova S.E.**

**Shymkent- 2022**

Departmental discussions held on «_____»_____2023
Record of meeting № ____

Head of department, Candidate of Medical Sciences, associate professor of the department «General practitioner-1» _____ Datkaeva G.M.

**1. Theme № 1:** Pneumonia, acute and chronic bronchitis in GMP. Pneumonia with COVID-19.

**2. Learning goals:**
- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**2. Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**
- substantiate and clearly state the educational material;

- to use theoretical knowledge in the performance of practical tasks;

- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 1class

**7. Bibliography:**

1. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
2. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
3. Clinical protocol for the treatment and diagnosis of pneumonia, dated October 5, 2017 No.29.
4. Clinical protocol for the treatment and diagnosis of COVID-19, dated July 25, 2022 No.166.
5. https://media.skma.edu.kz/ Diagnosis of Pneumonia.
6. https://media.skma.edu.kz/ Treatment of pneumonia.

**8. Control:**

## Test questions

1. A 23-year-old man called a doctor at home, complained of an increase in body temperature up to 38C 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 minutes, on the right below the angle of the scapula there is dullness of percussion sound, fine bubbling wet rales are auscultated in the same place. The most optimal treatment for this patient:
A. Cefazolin 1.0 x 3 times a day intramuscularly for 10 days
B. Macropen 0.2 x 3 times a day orally for 5 days
C. Erythromycin 0.25 mg 2 tablets x 4 times a day for 7 days
E. Tetracycline 0.25 x 4 times a day orally for 10 days
E. Azithromycin 0.5 x1 once a day orally for 5 days
2. Female, 25 years old. Complaints of dry cough, feeling of soreness behind the sternum. Body temperature 37.50C. Sick for 3 days after a cold. On auscultation, vesicular breathing with prolonged exhalation, dry rales. Your preliminary diagnosis:
A. acute bronchitis
B. chronic bronchitis
C. bronchial asthma
D. dry pleurisy
E. pneumonia
3. Patient Zh., 42 years old, cough with purulent sputum, chills, temperature 40 C, pronounced intoxication syndrome. Objective and X-ray studies indicate a purulent-destructive fusion of lung tissue with the formation of thin-walled cavities without effusion. These signs are characteristic of pneumonia caused by ....
A. adenovirus
B. staphylococcus aureus
S. klebsiella
D. pneumococcus
E. mycoplasma
4. The following signs: in history - use of air conditioners, showers in hotels, boarding houses; febrile fever with severe intoxication, myalgia, arthralgia, cough, abdominal pain, diarrhea; in the blood - leukocytosis with lymphocytopenia, ESR 50 mm / h are characteristic of pneumonia caused by
A. staphylococcal
B. mycoplasma
C. chlamydial
D. legionella
E. pneumococcal
5. 23-year-old patient complains of dry cough, chills, fever up to 38 C, arthralgia and myalgia, skin rash. On physical examination: lymphadenopathy, hepatosplenomegaly. X-ray revealed an increase in the lung pattern, an indistinct blackout in the lower sections of the left lung. Treatment with penicillin and cephalosporins had no effect. The reason for the development of the above symptoms is ... .
A. mycoplasma
B. pneumococcus
C. Haemophilus influenzae
D. staphylococcus aureus
E. Pseudomonas aeruginosa

6. Acute course of the disease, wet rales, infiltrative shadows of moderate intensity in the middle-lower parts of the lungs, rapid positive dynamics are most characteristic of ... .
A. focal pneumonia
B. pneumoconiosis
C. miliary tuberculosis
D. infiltrative tuberculosis
E. sarcoidosis
7. Patient, 26 years old, from the social risk group. Complaints of weakness, malaise, fatigue, weight loss, coughing, night sweats. Sick for the last 2-3 months, very often works the night shift. The fluorogram revealed an infiltrative shadow in the upper lobe of the right lung, with a path to the root. In this case, the patient must appoint:
A. antibiotic therapy
B. consultation with a phthisiatrician
C. sputum analysis for BC
D. anti-tuberculosis treatment
E. repeated radiography
8. Drugs of choice for empirical therapy of patients with community-acquired pneumonia:
A. penicillin, erythromycin, azithromycin
B. ciprofloxacin, pefloxacin, ofloxacin
C. streptomycin and gentamicin
D. lincomycin and chloramphenicol
E. imipenem and meropenem
9. In the case of a favorable outcome, convalescents of acute pneumonia are registered in the dispensary:
A. 10 months
B. 6 months
C. 2 years
D. 1 year
E. for life
10. A 19-year-old patient consulted a general practitioner about an increase in body temperature 2 days ago to 37.5 - 37.8, dry cough, runny nose. The cough is wet, unproductive. Heart rate - 90 per minute. NPV - 22 per min. Breathing is hard, on both sides, more in the basal sections dry whistling, as well as moist medium-caliber rales are determined. Patient's diagnosis:
A. bronchial asthma
B. pneumonia
C. laryngotracheitis
D. non-obstructive bronchitis
E. tuberculosis
11. A patient, 40 years old, fell ill 2 hours ago, at work the temperature rose to 38 C, muscle pains, weakness, weakness appeared. By evening, the body temperature rose to 39 C, chills, stabbing pains in the chest appeared, aggravated by coughing, dry cough, then with scanty sputum, shortness of breath. Objectively: the patient's condition is grave, the skin is hyperemic. Breathing speeded up, 26 in 1 min., shortening of percussion sound over the lower lobe of the right lung, fine bubbling rales, muffled heart sounds.
Patient's diagnosis:
A. bronchial asthma
B. chronic bronchitis, exacerbation
C. acute bronchitis

D. bronchiectasis
E. community-acquired pneumonia
12. Outpatient treatment of community-acquired pneumonia is possible with
A. mild pneumonia, in the absence of complications and concomitant diseases
B. pneumonia with damage to the lobe of the lung
C. complicated forms of pneumonia
D. severe concomitant diseases of the respiratory and cardiovascular system
E. Patients over 65 years of age
13. To determine the severity of respiratory failure informative:
A. study of the gas composition of arterial blood
B. complaints and anamnesis of the patient
C. spirographic study
D. x-ray examination
E. physical examination of the patient
14. A district doctor diagnosed a 27-year-old patient with pneumonia. Treatment of non-severe pneumonia in young people without concomitant pathology in outpatient settings should begin with drugs:
A. penicillin series
B. group of aminoglycosides
C. cephalosporin
D. tetracycline series
E. fluoroquinolone group
15. The term "atypical pneumonia" is commonly understood as:
A. viral bronchopneumonia
B. pneumococcal pneumonia of the upper lobe localization
C. pneumonia caused by legionella, chlamydia, or mycoplasmas
D. eosinophilic infiltrate
E. Gram-negative pneumonia
16. Woman, 25 years old. Complaints of dry cough, feeling of soreness behind the sternum. Body temperature 37.5C. Sick for 3 days after a cold. On auscultation, vesicular breathing with prolonged exhalation, dry rales. Your preliminary diagnosis:
A. chronic bronchitis
B. acute bronchitis
C. bronchial asthma
D. dry pleurisy
E. pneumonia
17. A 45-year-old man, who has been a smoker since childhood, consulted a general practitioner with complaints of severe pain in his right side, weight loss, cough with streaks of scarlet blood. Examination revealed dilated veins on the anterior surface of the chest and neck. Percussion and auscultation over the upper lobe of the right lung revealed pronounced dullness and weakening of breathing. Complete blood count: ESR 62 mm/h. Provisional diagnosis:
A. lung tumor
B. exogenous allergic alveolitis
C. nosocomial pneumonia
D. infiltrative tuberculosis
E. Löfgren's syndrome
18. A 38-year-old patient consulted a general practitioner complaining of cough, sometimes with mucopurulent sputum. During the last 2 years. Smoked since the age of 15. For the last 3

months, expiratory dyspnea appeared when running and climbing to the 3rd floor. Auscultation: hard breathing, dry rales. The Tiffno index is 55%. Correct diagnosis:
A. encysted pleurisy
B. acute bronchopneumonia
C. chronic obstructive bronchitis
D. sarcoidosis of the lungs
E. bronchial asthma
19. The severity of chronic obstructive bronchitis is determined objectively based on:
A. studies of the function of external respiration
B. auscultation of the lungs
C. lung percussion
D. electrocardiography
E. bronchography
20. A 72-year-old man who has been suffering from COPD for many years complains of fever, cough with mucopurulent sputum, shortness of breath, weakness, sweating that appeared after hypothermia. X-ray revealed infiltration of the lung tissue on the right in the lower lobe. It is most expedient for the patient to prescribe ... .
A. clarithromycin
B. tetracycline
C. prednisolone
D. gentamicin
E. lincomycin

**Situational tasks**

**№ 1.** Patient K., 40 years old, at an outpatient appointment with a district doctor of a polyclinic, complained of fever up to 38 0C in the evenings, persistent cough with mucopurulent sputum, shortness of breath during exercise, general weakness, increased sweating.
Considers himself ill for a week, when the cough intensified, shortness of breath appeared when walking, temperature in the afternoon. Of the past diseases, she notes acute pneumonia 2 years ago, chronic gastritis for 10 years.
Smokes up to 1.5 packs a day, drinks alcohol. A month ago he returned from prison, does not work.
An objective examination of the general condition is satisfactory. Reduced nutrition. The skin is moist, there is a blush on the left cheek. Temperature 37.3 0C. Axillary lymph nodes are palpable, mobile, painless, 0.5 x 1.0 cm. NPV 20 per minute. There is a shortening of the percussion sound above the left apex, there is breathing with a bronchial tint, single dry rales. Over the rest of the surface breathing is mixed, there are no wheezing. Heart sounds are quickened, rhythmic. Pulse - 100 per minute, rhythmic, satisfactory filling and tension. BP - 130/80 mm Hg. Art. The tongue is covered with a grayish coating. The abdomen is soft and painless. The liver and spleen are not palpated.
**Assignment to the situational task:**
1. Make a diagnosis.
2. Make a list of diseases for differential diagnosis.
3. Schedule an examination.

**№ 2.** A mass illness of military personnel with pneumonia occurring with an unproductive cough and pronounced symptoms of intoxication was noted. X-ray: bilateral strengthening of the

pulmonary pattern in the basal areas, polymorphic foci of inflammatory infiltration. Therapy with ampicillin, gentamicin, cephalosporins is not effective.

**Assignment to the situational task:**

1. Most likely etiology of pneumonia.
2. Determine the leading syndrome.
3. Justify the diagnosis.

**1. Theme № 2:** COPD, bronchial asthma, chronic cor pulmonale, respiratory failure in GMP.

**2. Learning goals:**

- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**3. Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**

- substantiate and clearly state the educational material;
- to use theoretical knowledge in the performance of practical tasks;
- navigate the flow of information and highlight the main thing;
- clearly formulate the problem, critically evaluate its solution;
- to formulate own position and argue it.

**6. The deadline for task completion:** the 2 class

**7. Bibliography:**

7. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
8. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
9. Clinical protocol for the treatment and diagnosis of COPD, dated November 10, 2017 No.15.

**8. Control:**

## Test questions

1. A 40-year-old patient fell ill 2 hours ago, at work the temperature rose to 38 C, muscle pains, weakness, weakness appeared. By evening, the body temperature rose to 39 C, chills, stabbing pains in the chest appeared, aggravated by coughing, dry cough, then with scanty sputum, shortness of breath. Objectively: the patient's condition is grave, the skin is hyperemic. Breathing speeded up, 26 in 1 min., shortening of percussion sound over the lower lobe of the right lung, fine bubbling rales, muffled heart sounds.
Patient's diagnosis:
A. bronchial asthma
B. chronic bronchitis, exacerbation
C. acute bronchitis
D. bronchiectasis
E. community-acquired pneumonia

2. Outpatient treatment of community-acquired pneumonia is possible with
A. mild pneumonia, in the absence of complications and concomitant diseases
B. pneumonia with damage to the lobe of the lung
C. complicated forms of pneumonia
D. severe concomitant diseases of the respiratory and cardiovascular system
E. Patients over 65 years of age

3. To determine the severity of respiratory failure informative:
A. study of the gas composition of arterial blood
B. complaints and anamnesis of the patient
C. spirographic study
D. x-ray examination
E. physical examination of the patient

4. A local doctor diagnosed pneumonia to a 27-year-old patient. Treatment of non-severe pneumonia in young people without concomitant pathology in outpatient settings should begin with drugs:
A. penicillin series
B. group of aminoglycosides
C. cephalosporin
D. tetracycline series
E. fluoroquinolone group

5. The term "atypical pneumonia" is commonly understood as:
A. viral bronchopneumonia
B. pneumococcal pneumonia of the upper lobe localization
C. pneumonia caused by legionella, chlamydia, or mycoplasmas
D. eosinophilic infiltrate
E. Gram-negative pneumonia

6. Woman, 25 years old. Complaints of dry cough, feeling of soreness behind the sternum. Body temperature 37.5C. Sick for 3 days after a cold. On auscultation, vesicular breathing with prolonged exhalation, dry rales. Your preliminary diagnosis:

A. chronic bronchitis
B. acute bronchitis
C. bronchial asthma
D. dry pleurisy
E. pneumonia

7. A 45-year-old man who has been a smoker since childhood turned to a general practitioner with complaints of severe pain in his right side, weight loss, cough with streaks of scarlet blood. Examination revealed dilated veins on the anterior surface of the chest and neck. Percussion and auscultation over the upper lobe of the right lung revealed pronounced dullness and weakening of breathing. Complete blood count: ESR 62 mm/h. Provisional diagnosis:
A. lung tumor
B. exogenous allergic alveolitis
C. nosocomial pneumonia
D. infiltrative tuberculosis
E. Löfgren's syndrome

8. A 38-year-old patient went to a general practitioner with complaints of cough, sometimes with mucopurulent sputum. During the last 2 years. Smoked since the age of 15. For the last 3 months, expiratory dyspnea appeared when running and climbing to the 3rd floor. Auscultation: hard breathing, dry rales. The Tiffno index is 55%. Correct diagnosis:
A. encysted pleurisy
B. acute bronchopneumonia
C. chronic obstructive bronchitis
D. sarcoidosis of the lungs
E. bronchial asthma

9. The severity of chronic obstructive bronchitis is determined objectively based on:
A. studies of the function of external respiration
B. auscultation of the lungs
C. lung percussion
D. electrocardiography
E. bronchography

10. A 72-year-old man who has been suffering from COPD for many years complains of fever, cough with mucopurulent sputum, shortness of breath, weakness, sweating that appeared after hypothermia. X-ray revealed infiltration of the lung tissue on the right in the lower lobe. It is most expedient for the patient to prescribe ... .
A. clarithromycin
B. tetracycline
C. prednisolone
D. gentamicin
E. lincomycin
11. A 23-year-old man called a doctor at home, complained of an increase in body temperature up to 38C 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 minutes, on the right below the angle of the scapula there is dullness of percussion sound, fine bubbling wet rales are auscultated in the same place. The most optimal treatment for this patient:

A. Cefazolin 1.0 x 3 times a day intramuscularly for 10 days
B. Macropen 0.2 x 3 times a day orally for 5 days
C. Erythromycin 0.25 mg 2 tablets x 4 times a day for 7 days
E. Tetracycline 0.25 x 4 times a day orally for 10 days
E. Azithromycin 0.5 x1 once a day orally for 5 days

12. Woman, 25 years old. Complaints of dry cough, feeling of soreness behind the sternum. Body temperature 37.50C. Sick for 3 days after a cold. On auscultation, vesicular breathing with prolonged exhalation, dry rales. Your preliminary diagnosis:
A. acute bronchitis
B. chronic bronchitis
C. bronchial asthma
D. dry pleurisy
E. pneumonia

13. Patient Zh., 42 years old, has a cough with purulent sputum, chills, a temperature of 40 C, a pronounced intoxication syndrome. Objective and X-ray studies indicate a purulent-destructive fusion of lung tissue with the formation of thin-walled cavities without effusion. These signs are characteristic of pneumonia caused by ....
A. adenovirus
B. staphylococcus aureus
S. klebsiella
D. pneumococcus
E. mycoplasma

14. The following signs: in history - the use of air conditioners, showers in hotels, boarding houses; febrile fever with severe intoxication, myalgia, arthralgia, cough, abdominal pain, diarrhea; in the blood - leukocytosis with lymphocytopenia, ESR 50 mm / h are characteristic of pneumonia caused by
A. staphylococcal
B. mycoplasma
C. chlamydial
D. legionella
E. pneumococcal

15. A 23-year-old patient complains of dry cough, chills, fever up to 38 C, arthralgia and myalgia, skin rash. On physical examination: lymphadenopathy, hepatosplenomegaly. X-ray revealed an increase in the lung pattern, an indistinct blackout in the lower sections of the left lung. Treatment with penicillin and cephalosporins had no effect. The reason for the development of the above symptoms is ... .
A. mycoplasma
B. pneumococcus
C. Haemophilus influenzae
D. staphylococcus aureus
E. Pseudomonas aeruginosa

16. Acute course of the disease, wet rales, infiltrative shadows of moderate intensity in the middle-lower parts of the lungs, rapid positive dynamics are most characteristic of ... .

A. focal pneumonia
B. pneumoconiosis
C. miliary tuberculosis
D. infiltrative tuberculosis
E. sarcoidosis

17. Patient, 26 years old, from the social risk group. Complaints of weakness, malaise, fatigue, weight loss, coughing, night sweats. Sick for the last 2-3 months, very often works the night shift. The fluorogram revealed an infiltrative shadow in the upper lobe of the right lung, with a path to the root. In this case, the patient must appoint:
A. antibiotic therapy
B. consultation with a phthisiatrician
C. sputum analysis for BC
D. anti-tuberculosis treatment
E. repeated radiography

18. Drugs of choice for empirical therapy of patients with community-acquired pneumonia:
A. penicillin, erythromycin, azithromycin
B. ciprofloxacin, pefloxacin, ofloxacin
C. streptomycin and gentamicin
D. lincomycin and chloramphenicol
E. imipenem and meropenem

19. In case of a favorable outcome, convalescents of acute pneumonia are registered in the dispensary:
A. 10 months
B. 6 months
C. 2 years
D. 1 year
E. for life

20. A 19-year-old patient consulted a general practitioner about an increase in body temperature 2 days ago to 37.5 - 37.8, dry cough, runny nose. The cough is wet, unproductive. Heart rate - 90 per minute. NPV - 22 per min. Breathing is hard, on both sides, more in the basal sections dry whistling, as well as moist medium-caliber rales are determined. Patient's diagnosis:
A. bronchial asthma
B. pneumonia
C. laryngotracheitis
D. non-obstructive bronchitis
E. tuberculosis

**Situational tasks**

**№ 1.** Complaints of a 48-year-old patient: cough with mucopurulent sputum, pain in the left side of the chest, fever up to 380C. From the anamnesis: 1 day ago, due to hypothermia, a few hours later, a sudden severe chill, fever up to 380C, stabbing pain in the chest, severe weakness appeared. The patient was admitted to the clinic at the 18th hour from the onset of the disease. Objectively: general condition of moderate severity, herpes around the mouth. The left half of the chest lags

behind in the act of breathing. With comparative percussion, a shortening of the percussion sound below the left clavicle is determined. Auscultatory vesicular respiration, in the indicated focus, against the background of sharply weakened vesicular respiration, crepitus is heard. BH - 26 per minute. Heart sounds are clear, rhythmic. Heart rate - 91 beats / min. BP - 100/70 mm Hg. Art. KLA: ESR - 28 mm/hour, leukocytes - 13x109/l, toxic granularity of neutrophils. BAK: fibrinogen - 5.6 g / l. Plain radiograph of the chest cavity: infiltrate with fuzzy contours in the lower lobe of the left lung.

**Assignment to the situational task:**

1. Preliminary diagnosis.
2. Differential diagnosis.
3. Survey plan.
4. Clinical diagnosis.
5. Treatment.

**№ 2.** A 53-year-old man was admitted to the clinic with the following complaints: pain in the right half of the chest, fever up to 390C, chills, cough with up to 300 ml/day of purulent sputum.
Upon questioning, it was revealed that 2 weeks ago the patient bathed in 120-ohm water, after which, after 1 day, the above complaints appeared, herpes on the lips. The clinic treated acute respiratory infections, then pneumonia. From the anamnesis: frequent alcohol use, frequent diarrhea. Admitted on the 12th day from the onset of the disease. Objectively: the general condition is severe. The skin is pale, in the neck - fungal infections, hyperpigmentation of the hands and feet. NPV - 29 per minute. The right half of the chest lags behind in the act of breathing. Below the scapula, the percussion sound is shortened. Against the background of weakened vesicular respiration, sonorous wet rales of various sizes are heard. Heart sounds are muffled, rhythmic. Pulse - 100 beats / min, rhythmic. BP - 100/60 mm Hg. Art. The abdomen is soft, the liver is 2 cm below the costal arch, slightly painful, soreness is noted at the De-Jardin point. KLA: erythrocytes - 3.3x1012 / l, hemoglobin - 121 g / l, color index - 1.2, ESR - 50 mm / h, leukocytes - 19.8x109 / l, toxic granularity of neutrophils +++. Sputum analysis: elastic fibers. OAM: protein - 0.2‰. Plain radiograph of the organs of the chest cavity: in the lower lobe of the right lung there is a cavity measuring 4x5 cm with a horizontal level of fluid and a zone of perifocal inflammation.

**Assignment to the situational task:**

1. Preliminary diagnosis.
2. Differential diagnosis.
3. Survey plan.
4. Clinical diagnosis.
5. Treatment.

**1.Theme № 3:** Acute coronary syndrome, arterial hypertension, metabolic syndrome in GMP.

**2. Learning goals:**

- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;

- development of skills for effective independent professional theoretical, practical and educational and research activities.

**4. Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**
- substantiate and clearly state the educational material;

- to use theoretical knowledge in the performance of practical tasks;

- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 3 class

**7. Bibliography:**

10. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
11. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
12. Clinical protocol for the treatment and diagnosis of Acute coronary syndrome, dated June 23, 2016 No.5.
13. Clinical protocol for the treatment and diagnosis of Arterial hypertension, dated October 3, 2019 No.74.
14. https://media.skma.edu.kz/ Acute coronary syndrome.

**8. Control:**

**Test questions**

1. A patient came to the doctor with complaints of episodes of night attacks of intense pressing pains in the chest, which disappear on their own within 2-3 minutes. There are no changes on the ECG taken outside the attack. From the anamnesis: Attacks of pain often occur at night, repeat after 10-15 minutes. Most likely diagnosis:
A. Variant angina
B. Angina pectoris II FC
C. Angina III FC
D. Angina pectoris IV FC
E. Acute myocardial infarction

2. For individuals at high CV risk (5-10% SCORE or significantly elevated levels of certain RFs, such as familial hypercholesterolemia or severe hypertension), a target BP level is recommended:
A. BP < 130/80 mm Hg. Art.
C. BP < 135/85 mm Hg. Art.
C. BP < 140/90 mmHg Art.
D. BP < 145/90 mmHg Art.
E. BP < 150/90 mm Hg. Art.

3. A 47-year-old patient 2 weeks ago, during a rapid ascent to the 4th floor, had pain in the lower third of the sternum, which passed at rest. This is the first time such pain has occurred. In the future, they began to appear when walking fast, climbing to the 2nd floor. Determine the form of coronary heart disease:
A. Angina pectoris FC 2
B. Progressive angina
C. New onset angina
D. Myocardial infarction, acute phase
E. Prinzmetal's angina

4. In a 55-year-old man suffering from coronary artery disease, angina pectoris FC II, an attack of pain is accompanied by palpitations, flushing of the face. The drug is considered appropriate:
A. thromboAss 100 mg per day
B. sublingual nitroglycerin (unlimited)
C. kardiket 20 mg 3-4 times a day
D. metoprolol 100 mg daily in 2 divided doses
E. simvasterol 10 mg per day.

5. In individuals with high cardiovascular risk (5-10% on the SCORE scale or significantly elevated levels of certain risk factors, for example, familial hypercholesterolemia or high-grade hypertension), a target level of LDL-C is recommended:
A. LDL-C < 2.5 mmol/l
C. LDL-C < 3.0 mmol/l
C. LDL-C < 3.5 mmol/l
D. LDL-C < 4.0 mmol/l
E. LDL-C < 4.5 mmol/l

6. For persons with a very high cardiovascular risk (patients with an established diagnosis of atherosclerosis of any localization; type II and type I diabetes with microalbuminuria; chronic kidney disease; total risk > 10% on the SCORE scale), a target LDL-C level is recommended:
A. LDL-C < 1.8 mmol/l
B. LDL-C < 2.5 mmol/l
C. LDL-C < 2.8 mmol/l
D. LDL-C < 3.0 mmol/L
E. LDL-C < 3.5 mmol/l

7. For individuals at high and very high CV risk, a target fasting blood glucose level is recommended:
A. < 6.0 mmol/l
B. < 6.5 mmol/l

C. < 6.7 mmol / l
D. < 7.0 mmol/l
E. < 7.2 mmol/l

8. Select a clinical sign, on the basis of which it is possible to make a diagnosis of new-onset angina pectoris:
A. pain attack first appeared six months ago
C. pain attack first occurred three weeks ago
C. retrosternal pain occurs during physical exertion
D. retrosternal pain occurs at night (at rest)
E. increase in the frequency and severity of seizures
angina pectoris

9. A 50-year-old patient with frequent exacerbations of smoker's bronchitis tonight for the first time in his life experienced an attack of pain behind the sternum of a compressive nature, unrelated to breathing and irradiation to the neck, lasting 2-3 hours, severe weakness and sweating. Your diagnosis:
A. cervical osteochondrosis
B. spontaneous pneumothorax
C. cor pulmonale
D. myocardial infarction
E. pulmonary infarction

10. A 47-year-old man has been complaining for the past few months of constricting pain behind the sternum that occurs when walking fast at an average pace over 500m and when climbing stairs to the 2nd floor. Occasionally, pain appears at rest. This case of angina can be classified as:
A. Unstable angina
B. Progressive angina
C. Stable angina
D. Variant angina
E. New onset angina pectoris
11. The appearance of hyperfermentemia (increased CPK, LDH, AST), neutrophilic leukocytosis, fever up to 380 C, as well as ECG changes in the first 2-3 days is typical for:
A. rheumatism
B. pneumonia
C. myocarditis
D. angina pectoris
E. myocardial infarction
12. Antiarrhythmic drug, which is the drug of choice in the development of a patient's paroxysm of ventricular tachycardia:
A. digoxin
B. lidocaine
C. isoptin
D. obzidan
E. etmozin
13. Interval therapy to prevent nitrate tolerance includes:
A. a break in taking nitrates for 4-6 hours

C. a break in taking nitrates for 8-12 hours
C. interruption of nitrate intake for 24 hours
D. a break in taking nitrates for three days
E. a break in taking nitrates for 1-2 hours
14. For the treatment of chronic heart failure are not recommended:
A. short-acting calcium antagonist - nifedipine
B. diuretic drug-spironolactone
C. beta-blocker-metoprolol
D. cardiac glycoside-digoxin
E. angiotensin-converting enzyme inhibitor-perindopril
15. For an elderly person with the 1st degree of heart failure due to postinfarction cardiosclerosis, it is most advisable to prescribe:
A. perindopril
V. sustak
C. isolanide
D. furosemide
E. digoxin
16. The most preferred pace of digitalization is:
A. slow - 7-10 days
B. fast - in 24-36 hours
C. moderately fast - in 3-4 days
D. fast in 12-24 hours
E. very slow - 20-30 days

17. A 50-year-old patient consulted a general practitioner with complaints of intense pain in the chest. When examined by a doctor, no visible changes were found in the heart and lungs. BP 120/85 mm Hg, heart rate - 88 beats per 1 minute. The correct tactics of the doctor provides
A. urgent ECG study
B. referral to inpatient treatment
C. assistance and the next day
D. treatment with analgesics
E. referral for planned treatment
18. An elderly patient with angina attacks and proven sick sinus syndrome can be recommended as an antianginal agent.
A. metoprolol
B. amlodipine
C. verapamil
D. cordaron
E. diltiazem
19. Contraindications for an ECG test with physical activity include:
A. assessment of the prognosis in patients with established coronary heart disease
B. assessment of FC angina pectoris
C. acute myocardial infarction (less than 48-72 hours)
E. Examination of a patient undergoing revascularization in case of symptoms
E. the need to set the parameters of the frequency-adaptive pacemaker
20. A pathognomonic sign for angina pectoris is:
A. retrosternal pain and depression on the ECG of the ST segment by 1 mm or more
B. retrosternal pain unrelated to physical activity

C. ventricular extrasystole after exercise
E. ST segment elevation less than 1mm
E. Q wave increase in standard I and aVF leads

**Situational tasks**

**№ 1.** A 52-year-old woman came to the appointment complaining of headaches, dizziness, flickering of dark flies or sparkles in the eyes, palpitations, and rapid fatigue.

Anamnesis of the disease: Considers himself ill for 10 years. Notes rises in blood pressure. Figures for maximum lift 190/120 mm Hg. Antihypertensive therapy is not taken regularly. She took atenolol, capoten. Over the past 2 years, she has noticed a deterioration in vision in the form of flies flickering before her eyes, her heartbeat has begun to bother. Deterioration of the condition during the week, connects with a change in the weather and the lack of medication. The pressure is kept at 190/130 mm. rt. Art.

Anamnesis of life: Grew and developed according to age. Heredity is burdened: the father and mother suffered from arterial hypertension. Allergy history is calm. There are no bad habits. She worked as a cook.

Objectively: Before you is a woman, hypersthenic physique, overweight. General condition of moderate severity. Body temperature - 36.6C. Acrocyanosis of the skin. In the lungs, vesicular breathing, no wheezing. Shift of the apex beat to the left. The border of relative cardiac dullness is 2.0 cm outward from the midclavicular line. Blood pressure 190/130 mm Hg. Heart rate 92 min. Auscultatory: the appearance of accent II tone on the projection of the aortic valve in the second intercostal space on the right. The abdomen is soft and painless. Urination free, painless.

**Examination:**
**Complete blood count** - hemoglobin - 150 g / l; erythrocytes 4.2*1012/l; leukocytes - 6.2 * 109 / l; ESR - 14 mm/g;
**General analysis of urine** - 1016; protein 0.033%; leukocytes - 2-3 in p /sp;
**Biochemical blood test** - glucose - 5.5 mmol / l, creatinine - 1.2 mg / dl, total protein - 76 g / l, Reberg's test - glomerular filtration rate - 98.4 ml / min,
cholesterol 220 mg/dl, triglycerides 120 mg/dl.
Na+ 130 mmol/l; K+ - 3.3 mmol/l;

**Instrumental research:**
**ECG:** wave amplitude RV4<RV5, RV4<RV6; RV5.6>25mm or RV5.6+SV1≥35mm; R1 >15 mm, RaVL≥11 mm, RI+SIII≥25 mm; QRS V5, V6 more than 0.05 s.
**X-ray examination:** the aorta is somewhat dilated, elongated, bent, the arch rises upward and shifts somewhat to the left.
**ECHO-CG:** stroke volume - 110 ml
ejection fraction - 72%
thickness of the walls of the left ventricle in diastole - 1.1 cm
thickness of the posterior wall of the left ventricle - 1.0 cm
thickness of the interventricular septum - 1.0 cm
end-diastolic size of the cavity of the left ventricle - 5.5 cm
end-systolic size of the cavity of the left ventricle - 4.1 cm
excursion of the interventricular septum - 1.0 cm.
**Angiography of the brain** - stenosis of extra- and intracranial vessels, collateral blood flow

**Ophthalmoscopy:** narrowing and tortuosity of the retinal arterioles, uneven caliber, pathological light reflex and pathological arteriovenous decussation.

**Assignment to the situational task:**

1. Preliminary diagnosis.
2. Differential diagnosis.
3. Survey plan.
4. Clinical diagnosis.
5. Treatment.

**№ 2.** Patient D., aged 69, went to the doctor with complaints of burning pain behind the sternum radiating to the left half of the lower jaw. Pain occurs during normal physical activity and at rest, lasts for several minutes, is stopped by repeated intake of 3-4 tablets of nitroglycerin. In addition, notes shortness of breath and palpitations when walking. Sick for 12 years. At first, pain attacks occurred rarely, with significant physical exertion, lasted 2-3 minutes, were removed with one tablet of nitroglycerin. Objectively: the general condition is satisfactory. Lungs without pathology. The area of the heart is not changed, the boundaries of relative dullness are shifted to the left. Heart sounds are muffled, systolic murmur at the apex, accent II tone on the aorta, single extrasystoles are auscultated. BP 140/80 mmHg Pulse arrhythmic, 85 per minute. On the part of the abdominal organs, no pathology was detected.

**Assignment to the situational task:**

1. Formulate a preliminary diagnosis.
2. Make a plan for additional research.
3. Make a differential diagnosis.
4. Give treatment.
5. What ECG changes are observed in this pathology

**1.Theme № 4:** Syndrome of rhythm disturbances, circulatory failure in the GMP.

**2. Learning goals:**

- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**5. Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**

- substantiate and clearly state the educational material;

- to use theoretical knowledge in the performance of practical tasks;

- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 4 class

**7. Bibliography:**

15. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
16. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
17. Clinical protocol for the treatment and diagnosis of Rhythm disturbances, dated June 23, 2016 No.5.

**8. Control:**

**Test questions**

1. A 45-year-old man went to a general practitioner with complaints of headache, nausea, pressing pains in the heart area. For two years she has been in the dispensary for arterial hypertension. Blood pressure rises to a maximum of 150/95 mm Hg. Art. The results of clinical and laboratory studies are unchanged. ECG: Signs of left ventricular hypertrophy. Determine the degree and risk group of arterial hypertension:
A. Arterial hypertension III degree, risk III
B. arterial hypertension II degree, risk III
C. arterial hypertension II degree, risk IV
E. Arterial hypertension of the I degree, risk III
E. arterial hypertension, III degree, risk IV
2. The patient is 67 years old, suffers from high blood pressure for 10 years, smokes, suffers from type 2 diabetes, takes glucophage at a dosage of 850 mg per day. Body mass index 32 kg/m2, cholesterol level 6.0 mmol/l. ECG shows signs of left ventricular hypertrophy. At the time of examination, the level of blood pressure was 170/100 mm Hg. your diagnosis.
A. arterial hypertension of the 2nd degree, risk 3
B. arterial hypertension grade 3, risk 4
C. arterial hypertension grade 2, risk 4
E. arterial hypertension of 1 degree, risk 4
E. arterial hypertension grade 3, risk 3
3. A 60-year-old patient complains of periodic headaches and dizziness during the last year. Repeatedly noted an increase in blood pressure to 170/100 mm Hg. Art., especially during periods of headaches. During the survey, it was found that the mother had high blood pressure, died at the age of 57 after a stroke. The patient is malnourished, smokes a lot, likes fatty foods and beer. Your estimated diagnosis:
A. Arterial hypertension of I degree, risk III

B. arterial hypertension II degree, risk II
C. arterial hypertension II degree, risk IV
D. arterial hypertension of III degree, risk III
E. Arterial hypertension III degree, risk IV
4. Tactics of managing patients with arterial hypertension at stage 1 (140-159 / 90-99 mm Hg), in the low-risk group:
A. lifestyle changes
B. lifestyle changes and non-drug therapy (within a month); in case of failure of drug therapy
C. lifestyle changes and drug therapy (within a month
D. drug therapy
E. lifestyle changes and non-drug therapy (within a year); in case of failure of drug therapy

5. A 57-year-old man went to the doctor with complaints of shortness of breath, accompanied by suffocation, coughing with foamy pink sputum. Deterioration is associated with physical activity. From the anamnesis: for 5 years she has been in the dispensary for arterial hypertension. On examination: Orthopnea. In the lungs, moist rales of various sizes on both sides. On auscultation of the heart, the tones are muffled, the rhythm is irregular. BP 160/100 mmHg ECG: atrial fibrillation, heart rate 120 per minute. Hypertrophy of the left ventricle with overload. Your diagnosis:
A. infarct pneumonia
B. an attack of bronchial asthma
C. pulmonary embolism
D. spontaneous pneumothorax
E. acute left ventricular failure
6. Irrational combinations in the treatment of arterial hypertension are:
A. beta-blockers with verapamil
B. beta-blockers with diuretics
C. ACE inhibitors with nifedipine
D. ACE inhibitors with diuretics
E. beta-blockers with amlodipine
7. A 78-year-old patient suffers from arterial hypertension. She is registered with a urologist for prostate adenoma. For a patient to reduce blood pressure and reduce urethral obstruction, it is most preferable to prescribe ....
A. doxazosin
B. esmolol
C. uregit
D. perindopril
E. verapamil
8. Select a drug that can cause worsening of heart failure due to negative inotropic action.
A. hydralazine
B. lidocaine
C. nitroprusside
D. nifedipine
E. methyldopa
9. When treating patients with gout with concomitant arterial hypertension, the following are contraindicated:
A. beta-blockers
B. angiotensin II receptor antagonists

C. calcium antagonists
D. diuretics
E. ACE inhibitors
10. The main criterion 4 of the risk of arterial hypertension is:
A. the presence of associated diseases
B. blood pressure level
C. changes in vital organs
D. development of a hypertensive crisis
E. presence of risk factors
11. Of the antihypertensive drugs, the group of angiotensin II receptor antagonists includes:
A. captoril
B. clonidine
C. losartan
D. veroshpiron
E. metoprolol
12. In case of insufficient hypotensive effect of monotherapy with angiotensin-converting enzyme inhibitors, it is preferable to add to a patient with arterial hypertension from diuretic drugs:
A. triamterene
B. furosemide
C. hypothiazide
D. veroshpiron
E. uregit
13. A 42-year-old man, who has been seen by a family doctor for type 2 diabetes mellitus for the past 3 years, following all the doctor's recommendations, complained of frequent headaches for 4 months. On examination: blood pressure up to 150/100 mm Hg. Art. When re-measured after 15 minutes and at the next appointment, the blood pressure figures are saved. Blood sugar level 6.1 mmol/l. Lowering blood pressure in this case ... .
A. does nothing, it is enough to correct the treatment of diabetes
B. will ensure the normalization of diabetes indicators
C. is necessary for the relief of headaches
D. does nothing, since blood pressure can recover on its own
E. will improve the patient's life prognosis
14. The main mechanism of action of beta-blockers in the treatment of patients with arterial hypertension is:
A. Decreased renin release
B. angiotensin-converting enzyme inhibition
C. decrease in circulating blood volume
D. decrease in cardiac output
E. decrease in peripheral vascular resistance
15. The appearance of dry cough can cause reception:
A. capotena
V. teopeka
C. berotek
D. nedokromila
E. atoris

16. A 43-year-old man has no complaints. BP 168/110 mmHg Serum electrolyte levels were within normal limits. Effective antihypertensive therapy is likely to reduce the likelihood of developing ... .
A. Aortic aneurysms
B. Stroke
C. Congestive heart failure
D. TELA
E. Renal failure
17. Determine the patient's FC when there is no restriction of physical activity, habitual physical activity is not accompanied by rapid fatigue, the appearance of shortness of breath or palpitations. The patient tolerates the increased load, but it may be accompanied by shortness of breath and / or delayed recovery (According to the New York functional classification of CHF):
A. FK I
V. FK II
S. FC III
D. FC IV
18. According to the New York functional classification of CHF, which class does the following condition belong to: slight limitation of physical activity - there are no symptoms at rest, habitual physical activity is accompanied by fatigue, shortness of breath or palpitations.
A. FK II
V. FK I
S. FC III
D. FC IV
19. According to the New York functional classification of CHF, which class does the following condition belong to: the inability to perform any physical activity without the appearance of discomfort - symptoms of heart failure are present at rest and increase with minimal physical activity.
A. FK I
V. FK II
S. FC III
D. FC IV
20. A patient with stable angina pectoris III FC developed angina attacks at rest, the frequency, intensity and duration of attacks increased, the ECG showed changes that were not there and persisted for several days, vegetative shifts (perspiration, palpitations), suffocation, and ECG dynamics and the study of enzyme activity allow to exclude myocardial infarction. Your diagnosis:
A. unstable angina
B. stable angina IV FC
C. Prinzmetal's angina
D. stable angina II FC
E. stable angina III FC

**Situational tasks**

**№ 1.** A 58-year-old patient, an accountant, complains of intermittent interruptions in the work of the heart, accompanied by pressing pain behind the sternum and dizziness, shortness of breath with moderate physical exertion, decreased efficiency. Three years ago, he suffered a myocardial infarction, after which similar symptoms appeared. Objectively: the general condition is of moderate severity. Skin of normal color, acrocyanosis. In the lungs, vesicular breathing, single

inaudible moist rales in the lower sections. The number of breaths is 22 per minute. With percussion of the heart, the left border is determined 1 cm outward from the left mid-clavicular line. The tones are muffled, the rhythm is wrong, 14-16 extrasystoles per minute, the number of heartbeats is 86 per minute. BP 110/70 mmHg The abdomen is soft, painless on palpation. The liver and spleen are not palpated. On the ECG: PQ 0.24 s, QRS 0.10 s. Against the background of sinus rhythm, frequent right and left ventricular extrasystoles are recorded. In leads II, III, aVF the ventricular complex is in the form of QS, the T wave is isoelectric.

**Assignment to the situational task:**

1. Formulate a diagnosis
2. Make an examination plan
3. Treatment.

**№ 2.** Patient N., 38 years old, complains of shortness of breath at the slightest physical exertion, dull pain in the left side of the chest lasting up to 1.5-2 hours, cough, asthma attacks. Ill for about 5 years, shortness of breath periodically appeared, and at night they began to worry about asthma attacks. Treatment with cardiac glycosides had no effect. The last 3 years - a constant form of atrial fibrillation. A year ago, twice suffered a violation of cerebral circulation, since that time - left-sided hemiparesis. Over the past year, the condition has been progressively worsening, swelling and shortness of breath are increasing.

The condition is extremely serious, diffuse cyanosis, swelling of the cervical veins, positive venous pulse. Orthopnea. Swelling of legs and feet. In the posterior lower parts of the lungs, small bubbling wet rales are heard, respiratory rate - 26 per minute. Pulsation in the precordial region is determined. The boundaries of relative cardiac dullness: on the left along the anterior axillary line, along the VI intercostal space, on the right 2 cm outward from the right edge of the sternum. Systolic murmur at the apex and at the base of the xiphoid process, accent 2 tones over the pulmonary artery, heart rate - 74 per minute, pulse - 72 per minute, non-rhythmic. BP 125/70 mmHg The abdomen is enlarged due to free fluid. The edge of the liver is dense, 8 cm protrudes from under the edge of the costal arch.

**Complete blood count:** erythrocytes-3.5x1012/l, hemoglobin-110g/l, leukocytes-7.0x109/l, stab-2%, segmented-76%, lymphocytes-18%, monocytes-4%, ESR 7mm/hour .

**General analysis of urine:** straw yellow, specific gravity - 1012, protein - 0.066% o, leukocytes - 1-1 in vis., erythrocytes - 0-1. Electrocardiogram: P-wave is absent, irregular waves ff, irregular R-R intervals. The frequency of ventricular contractions - 76 per minute.

**24-hour ECG monitoring:** 3817 polytopic ventricular extrasystoles were registered. X-ray of the lungs: pronounced venous congestion in the lungs. The heart is expanded in diameter, more to the left, the waist of the heart is not expressed, in oblique projections - an increase in the left atrium and both ventricles. Echocardiogram: left ventricle: end diastolic size -7.0 cm, end systolic size - 6 cm, right ventricle - 3.1 cm, left atrium - 3.3 cm. The thickness of the posterior wall of the left ventricle is 1.1 cm, the thickness of the interventricular septum is 1.1 cm, the ejection fraction is 35%.

**Doppler sonography:** signs of mitral and tricuspid regurgitation.

**Assignment to the situational task:**

1. Highlight the syndromes characteristic of this disease
2. Evaluate the data of instrumental research methods
3. Justify and formulate a diagnosis
4. List the diseases with which it is necessary to carry out a differential diagnosis.

**1.Theme № 5:** Acute rheumatic fever, CRHD, heart defects, rheumatoid arthritis, osteoporosis, reactive arthritis, podagra in GMP.

**2. Learning goals:**
- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**6. Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**
- substantiate and clearly state the educational material;

- to use theoretical knowledge in the performance of practical tasks;

- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 5 class

**7. Bibliography:**

18. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
19. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
20. Clinical protocol for the treatment and diagnosis of Acute rheumatic fever and chronic rheumatic heart disease, dated September 29, 2016 No.12.
21. https://media.skma.edu.kz/ Diagnosis of Acute rheumatic fever.

**8. Control:**

**Test questions**

1. A 23-year-old pregnant woman consulted a general practitioner with complaints of weakness and fatigue. As a child, she often suffered from tonsillitis. On examination: the pulse is small,

slow, weakening of 1 tone at the apex of the heart and 2 tones on the aorta, systolic murmur on the aorta and at the Botkin-Erb point; the noise is heard better on the aorta, radiates to the carotid arteries and into the interscapular space. Your diagnosis:
A. chronic rheumatic heart disease, tricuspid valve insufficiency
B. chronic rheumatic heart disease, mitral valve insufficiency
C. chronic rheumatic heart disease, aortic stenosis
D. chronic rheumatic heart disease, mitral stenosis
E. chronic rheumatic heart disease, aortic valve insufficiency
2. The patient was discharged from the hospital on the 21st day after a large-focal myocardial infarction. Six months later, pain behind the sternum reappeared for 5-10 minutes, with the usual slight physical activity (climbing to the 1st floor, walking about 100 m), performed at a normal pace. Choose the optimal drug therapy:
A. monotherapy with antianginal drugs
Combination therapy with antianginal drugs
C. aspirin, statins, ACE inhibitors, antianginal drugs
D. statins, antianginal drugs
E. aspirin, statins, antianginal drugs
3. A 25-year-old patient went to the doctor with complaints of palpitations, dizziness and tinnitus. ECG: atrial fibrillation. On the previous ECG, the patient had WPW syndrome. Select the drug that is contraindicated in this case due to the risk of ventricular fibrillation:
A. isoptin
B. amiodarone
C. aymalin
D. rhythmic
E. propafenone
4. In heart failure, a contraindication to the appointment of spironolactone is:
A. potassium level less than 5 mmol/l
B. potassium level more than 5 mmol/l
C. creatinine level less than 200 mmol/l
D. sodium level less than 130 mmol/l
E. sodium level more than 130 mmol/l
5. When diagnosing chronic heart failure and to evaluate the effectiveness of treatment, the following are used as biological markers:
A. natriuretic hormones
B. catecholamines
C. corticosteroids
D. creatine phosphokinase
E. lactate dehydrogenase
6. Choose a medical tactic in relation to atrial fibrillation (permanent for 4 years) in a 68-year-old patient with postinfarction cardiosclerosis and heart failure stages I and II:
A. prophylactic treatment with rythmylene or isoptin to restore sinus rhythm
C. transfer of atrial fibrillation to sinus rhythm in a hospital with quinidine or EIT
C. maintenance of the normasystolic form of atrial fibrillation with the help of cardiac glycosides, and with insufficient effect in combination with beta-blockers
D. it is advisable to transfer to permanent electrical stimulation
E. permanent therapy is not required for such a patient
7. A systolic murmur at the apex of the heart and a weakening of the first tone were heard during a preventive examination in a 32-year-old patient. Makes no complaints. Physical load transfers

satisfactorily. In this patient, the electrocardiogram revealed wide double-humped P waves in leads I, II, aVL, V5, V6. These changes indicate:
A. right atrial hypertrophy
B. right ventricular hypertrophy
C. left atrial hypertrophy
D. left ventricular hypertrophy
E. myocardial ischemia
An 8.29 year old patient is troubled by shortness of breath during physical exertion, pain in the region of the heart, in the interscapular region. History of rheumatism. Objectively: acrocyanosis, the borders of the heart are shifted up and to the right, tone 1 is increased, diastolic murmur at the apex, quail rhythm, atrial fibrillation. R-graphy: the contrasted esophagus deviates along the arc of a small radius ECG: P - mitrale, right ventricular hypertrophy
Your diagnosis:
A. stenosis of the left atrioventricular orifice
B. aortic valve insufficiency
C. mitral valve prolapse
D. mitral valve insufficiency
E. stenosis of the aortic mouth.
9. Attacks of angina pectoris, fainting, shortness of breath, systolic trembling to the right of the sternum, weakening of the second tone and pronounced systolic murmur on the aorta, which is carried out on the vessels of the neck, a small pulse are characteristic of:
A. aortic stenosis
B. mitral valve insufficiency
C. tricuspid valve insufficiency
D. stenosis of the mouth of the pulmonary trunk
E. mitral stenosis
10. In the treatment of acute rheumatic fever, corticosteroid drugs are indicated for ... .
A. high activity process
B. moderate activity process
C. minimal process activity
D. recurrent course
E. sluggish process
11. Symmetrical lesion of large joints with volatility and rapid reverse development of the process is typical for ... .
A. rheumatic fever
B. gouty arthritis
C. deforming osteoarthritis
D. rheumatoid arthritis
E. pseudoarthritis
12. Acute onset, damage to 1 toe, purplish-bluish coloration of the skin, sharp pains, tophi on the head are characteristic of arthritis:
A. rheumatic
B. rheumatoid
C. tuberculous
D. gouty
E. deforming
13. At the reception, a 15-year-old girl, body temperature 37.60 C, complaints of migrating pains in large joints. The disease began about three weeks ago, but due to constantly changing

complaints, they did not go to the doctor. From the anamnesis: during the year she suffered from three tonsillitis and several times suffered from acute respiratory diseases, practically did not attend school. Currently, the pain in the right knee and left ankle joints is disturbing, the skin over them is slightly hyperemic, edematous; hot to the touch, movements in the joints are painful. On the skin of the chest there are soft pink spots with enlightenments in the center. Your preliminary diagnosis:
A. rheumatoid arthritis
B. infectious-allergic polyarthritis
C. lyme disease
D. rheumatoid arthritis
E. scleroderma
14. 30-year-old woman was operated on 2 months ago for mitral valve stenosis of rheumatic etiology. At the moment there are no complaints. An objective examination of the lungs, heart, and abdominal organs revealed no abnormalities. The most important factor in preventing recurrence of stenosis:
A. continuous use of clopidogrel
B. seasonal prescription of acetylsalicylic acid
C. tonsillectomy
D. seasonal prescription of bicillin
E. year-round prophylaxis with extencillin
15. 40-year-old woman consulted a doctor with complaints of shortness of breath, weakness, fatigue, head shaking. During the study, high pulse pressure, weakening of the second tone, diastolic murmur on the aorta. Your diagnosis:
A. mitral heart disease.
B. aortic valve insufficiency
C. malformation of the tricuspid valve.
D. stenosis of the aortic mouth.
E. congenital heart disease.
16. A 36-year-old woman complains of shortness of breath, weakness, palpitations, pain in the heart area during exercise. History: a year ago she was treated for acute rheumatic fever. Objectively: the borders of the heart are displaced to the left and upwards, 1 tone at the apex is weakened, a systolic murmur is heard here, which is conducted into the left axillary region. Provisional diagnosis:
A. aortic valve insufficiency
B. stenosis of the left atrioventricular orifice
C. aortic valve stenosis
D. mitral valve insufficiency
E. tricuspid insufficiency
17. A pregnant woman has blush on her cheeks on examination. Palpation at the top of the heart "cat's purr". Auscultatory: diastolic murmur, I clapping tone, mitral valve opening tone, arrhythmia. Heart rate - 110 per minute, pulse deficit. In the lungs in the lower parts of the moist muffled rales. NPV - 21-22 per minute. X-ray of the chest organs: smoothing of the waist of the heart, deviation of the esophagus along the arc of a small radius. ECG: hypertrophy of the left atrium and right ventricle. The patient has
A. tricuspid insufficiency
B. mitral insufficiency
C. aortic stenosis
D. aortic insufficiency

E. mitral stenosis
18. A 15-year-old girl came for a preventive examination. In history - at the age of 10, the first rheumatic attack occurring with joint damage and endocarditis. Complaints of weakness, fatigue, shortness of breath during physical exertion, in the evening swelling appears on the back of the feet. The condition is satisfactory. The skin is clean, pale. Heart sounds are muffled, a rather rough pansystolic murmur is heard. Legs pasty. Your tactics:
A. Observation in dynamics with the appointment of diuretics
B. Referral to a rheumatologist
C. Referral to a Cardiac Surgeon
D. Administration of antibiotics and diuretics
E. Referral for ultrasound of the heart with dopplerography
19. At the appointment with a general practitioner, a 9-year-old sick girl complains of prolonged subfebrile condition, weakness and fatigue, and poor appetite. From the anamnesis it is known that complaints appeared after tooth extraction 4 weeks ago. Symptomatic antipyretic therapy was carried out without a positive effect. Objectively: the general condition is severe. There is lethargy, pallor, shortness of breath. Palpation: increased apex beat, systolic trembling. Percussion: expansion of the boundaries of the heart. Auscultatory: rough scraping systolic murmur associated with the 1st tone, which is carried out to the entire region of the heart. BP 115/40 mmHg ECG: sinus tachycardia, normal position of the EOS, signs of overload of both ventricles. Preliminary diagnosis?
A. Infective endocarditis
B. Acute rheumatic fever
C. Viral myocarditis
D. Myocardial dystrophy
E. Cardiomyopathy
20. The patient is 11 years old. History of frequent acute respiratory infections, tonsillitis. From the age of 5 he has been in the dispensary for chronic tonsillitis. 3 weeks after suffering a sore throat, fatigue, arthralgia, tachycardia, expansion of the boundaries of the heart, and systolic murmur appeared. Tactics and preliminary diagnosis of a general practitioner:
A. infectious-allergic myocarditis, outpatient treatment
B. rheumatism, outpatient treatment
C. infectious-allergic myocarditis, hospitalization
D. rheumatism, hospitalization
E. congenital heart disease, hospitalization

## Situational tasks

**№ 1.** A 56-year-old patient complains of pain in the knee joints, in the 1st metatarsus - phalangeal joint of the foot, distal interphalangeal joints of the hands, and sometimes swelling of the knee joints. These phenomena, periodically intensifying, have been disturbing for many years. Objectively: increased nutrition, the knee joints are enlarged due to the thickening of the capsule, there is a small amount of effusion in the right cavity. Palpation of the joints during movement - a rough crunch, active and passive movements are painful. The terminal phalanges of the fingers are curved at the base, where hard nodules are palpated. Minor atrophy of the thigh muscles. The heart is not enlarged, the tones are muffled, there are no murmurs. BP - 160/100 mm Hg. Art. The edge of the liver is palpated 2 cm below the costal arch. The spleen is not enlarged. KLA: Hb - 120 g / l, erythrocytes - 4.0x1012 / l, leukocytes - 5.3x109 / l, leukocyte formula without features, ESR -

23 mm / h. TANK: SRP +. α2 - globulins - 11%. Latex - the test is negative. Uric acid - 416.36 μmol / l. X-ray of the joints: the joint space is narrowed, subchondral osteosclerosis.

**Assignment to the situational task:**

1. Formulate a diagnosis.
2. Make an examination plan.
3. Treatment.

**№ 2.** Patient D., aged 50, turned to the paramedic with complaints of aching pain in the wrist and small joints of the fingers. In the morning, their stiffness, stiffness, fatigue, general weakness are noted. Sick for several years, repeatedly treated in a hospital. The last exacerbation within 5 - 6 months.

Objectively: the general condition is satisfactory. Body temperature 37.20C. The skin is clean. Pain and deformity of the metacarpophalangeal and proximal interphalangeal joints of the 2nd, 3rd, and 4th fingers are noted, movements in these joints are limited. Respiration is vesicular. Heart sounds are rhythmic, clear. Heart rate - 82 beats / min. BP - 120/80 mm Hg. Art. no abdominal pathology was found.

**Assignment to the situational task:**

1. Formulate a diagnosis.
2. Make an examination plan.
3. Treatment.

**1.Theme № 6:** Gastritis, peptic ulcer, pancreatitis, cholecystitis, hepatitis, cirrhosis of the liver in GMP.

**2. Learning goals:**

- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**7. Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**

- substantiate and clearly state the educational material;
- to use theoretical knowledge in the performance of practical tasks;
- navigate the flow of information and highlight the main thing;
- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 6 class

**7. Bibliography:**

22. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
23. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
24. Clinical protocol for the treatment and diagnosis of Gastritis, dated June 29, 2017 No.24.
25. Clinical protocol for the treatment and diagnosis of Cholecystitis, dated March 14, 2019 No.58.

**8. Control:**

**Test questions**

1. Patient B., 32 years old, complains of intense epigastric pain 3-4 hours after eating, often "hungry" and nocturnal, calming down after eating, persistent heartburn, sour belching, often sour vomiting, which brings relief, constipation. Objectively: percussion and palpation pain in the epigastrium on the right. A fecal occult blood test was positive. What is the presumptive diagnosis.
A. duodenal ulcer
B. ulcer of the subcardiac stomach
C. ulcer of the greater curvature of the stomach
D. gastroesophageal reflux disease
E. pyloric stenosis
2. Boy 13 years old. Complaints of heartburn, eructation of sour contents, epigastric pain on an empty stomach or 1 hour after eating. On palpation, pain in the epigastric region. Endoscopically: round or oval, rather deep defect of the gastric mucosa, covered with a whitish coating of fibrin, surrounded by an inflammatory shaft. Specify the diagnosis of this disease:
A. Gastric ulcer, acute phase, I fresh ulcer, revisceritis
B. Gastric ulcer, exacerbation phase, beginning of epithelialization, stenosis
C. Gastric ulcer, acute phase, I fresh ulcer, without complications
D. Peptic ulcer of the stomach, the phase of subsiding exacerbation, healing of the ulcer, without complications
E. Gastric ulcer, remission phase, without complications
3. A 55-year-old man has been suffering from duodenal ulcer for 2 years with frequent relapses. He responded positively to H2 therapy with histamine blockers. Came in with a bleeding ulcer. After 4 weeks of therapy with ranitidine, the ulcer healed. What is the next treatment strategy?
A. Maintenance therapy with H2 histamine blockers
B. Intermittent course therapy of H2 histamine blockers
C. Surgical treatment
D. Sucralfate therapy
E. Course therapy with omeprazole
4. At the appointment with a general practitioner, a 46-year-old patient complains of periodic vomiting of sour contents, belching after eating, discomfort in the epigastrium, and bloating. Palpation revealed pain in the epigastric region. What research should be done for the patient:

A. Fecal occult blood test
B. Barium contrast fluoroscopy
C. Fibrogastroduodenoscopy
D. Ultrasound
E. Examination of gastric juice

5. A 43-year-old man, a bus driver, complained of a feeling of heaviness in the epigastrium, loss of appetite, nausea, vomiting, belching with air. During FGDS - atrophy of the gastric mucosa. Urease test is positive. Your diagnosis:
A. Chronic atrophic gastritis associated with H. pylori
B. Chronic autoimmune pangastritis not associated with H. pylori
C. Chronic non-atrophic gastritis associated with H. pylori
D. Chronic reflux gastritis, type C
E. Chronic hypertrophic gastritis associated with H. pylori

6. Which of the following is the main pathogenetic mechanism of Helicobacter pylori influence on the level of hydrochloric acid secretion in the stomach?
A. H. pylori increases the concentration of serum gastrin and increases the secretion of hydrochloric acid.
B. H. pylori destroys the parietal cells of the stomach and reduces the secretion of hydrochloric acid.
C. H. pylori does not change the secretion of hydrochloric acid, having only a direct cytolytic effect on the epithelial cells of the stomach.
D. H. pylori reduces the level of hydrochloric acid in the stomach due to the formation of an ammonia cloud and neutralization of HC1.
E. H. pylori does not affect the secretion of hydrochloric acid, as it is considered an opportunistic pathogen.

7. A 57-year-old patient complains of pain in the epigastric region to the left of the midline, appearing after eating after 1 hour, nausea, and belching. Consists of a dispensary with a diagnosis of "deforming osteoarthritis", often suffers from colds; regularly, sometimes for a long time takes treatment.
Specify the intake of which drug most likely caused ulcerative lesions of the gastric mucosa?
A. Erythromycin
B. diclofenac
C. aluminum sulfate
D. Metronidazole
E. Amoxicillin

8. A 27-year-old man suddenly felt pain in the epigastrium and in the right hypochondrium. After a few hours, the pain subsided. Objectively: the tongue is dry, the abdomen is retracted, the muscles of the abdominal wall are tense. BP 90/60 mmHg Art., pulse 120 beats / min. Presumptive diagnosis:
A. Chronic gastritis
B. Peptic ulcer, ulcer perforation 12 p.k.
C. Biliary dyskinesia
D. Ruptured abdominal aortic aneurysm
E. Acute intestinal obstruction

9. A 26-year-old man complained of acute burning pain in the epigastrium, especially after eating, heartburn, nausea, occasionally vomiting, weakness and weight loss. From the anamnesis: he was treated for osteochondrosis for two weeks, he took NSAIDs. Objectively: pain in the epigastrium.

On FGDS: an ulcer in the fundus of the stomach. At the first stage of treatment, it is necessary to prescribe to the patient:
A. Almagel 1 tablespoon 3 times a day
B. Sucralfate 1g x 4 times a day
S. Solcoseryl, IM, 2 ml, 10 days
D. Urgent surgery
E. Omeprazole 40 mg orally twice a day
10. A 40-year-old woman complains of increasing weakness, pain in the epigastrium, especially on an empty stomach and at night, constipation, dizziness, dry skin, brittle hair and nails, pain in the heart area not associated with exercise. I had never been ill before, recently there was an unpleasant conflict at work. To confirm the diagnosis, it is necessary to carry out:
A. CBC
B. electrocardiography
C. sigmoidoscopy
D. consultation with a neurologist
E. fibrogastroduodenoscopy
11. A 35-year-old patient complains of heartburn, pain that occurs 2-3 hours after eating, often on an empty stomach and at night. Pain disappears after taking milk. Palpation of the abdomen is determined by pain in the epigastric region and near the navel. The patient has a pronounced asthenovegetative syndrome. The patient needs inpatient treatment because he has:
A. pronounced asthenovegetative syndrome
B. newly diagnosed stomach ulcer
C. newly diagnosed duodenal ulcer
D. no complication of peptic ulcer
E. endoscopic examination is performed in the hospital
12. A 51-year-old man was admitted to the hospital with complaints of prolonged pain and a feeling of fullness in the right hypochondrium. On examination: no jaundice, positive Kera's symptom, subfebrile temperature, ESR - 30 mm/h. Your estimated diagnosis:
A. chronic cholecystitis, exacerbation
B. gastric ulcer, exacerbation
C. chronic hepatitis, exacerbation
D. chronic pancreatitis, exacerbation
E. chronic gastritis, exacerbation
13. In order to reduce hypertension in the pancreatic ducts,
A. cholecystokinin
B. enzymes
C. blockers of H2-histamine receptors
D. anticholinergics
E. proton pump inhibitors
14. A patient suffering from a long-term peptic ulcer with an ulcer localized in the stomach complained of weakness, nausea, loss of appetite, constant pain in the epigastric region, and weight loss. In this case, you can think about the following complication of peptic ulcer
A. Microbleeding from an ulcer
B. Stenosis of the outlet of the stomach
C. Ulcer penetration
D. Ulcer malignancy
E. Ulcer perforation

15. Patient K., 35 years old, was admitted with complaints of “nightly” and “hungry” pains in the epigastrium for 2 weeks. An endoscopic examination revealed for the first time an ulcer on the anterior wall of the duodenum measuring 1.2 cm. Helicobacter pylori was found in the biopsy. Choose the most appropriate treatment regimen:
A. Proton pump inhibitor + ampicillin + clarithromycin
B. Proton pump inhibitor + metronidazole + ampicillin
C. H2-histamine blocker + bismuth subsalicylate + tetracycline
D. Proton pump inhibitor + bismuth
E. Subsalicylate + tetracycline + metronidazole
16. A 26-year-old patient complains of pain in the epigastric region, mainly on an empty stomach and at night, which decreases after taking milk, as well as almost constant heartburn. Sick for about two years, was not examined and was not treated. Your estimated diagnosis:
A. chronic gastritis "type B"
B. chronic gastritis "type A"
C. duodenal ulcer
D. gastroesophageal reflux disease
E. gastric ulcer
17. A 40-year-old man has prolonged pain in the epigastric region, encircling nature, radiating to the back and a feeling of fullness in the right hypochondrium. Ultrasound examination: changes in the pancreas and signs of chronic cholecystitis. The most informative indicator for this pathology:
A. Leukocytosis
B. The level of amylase in the blood and urine
C. The level of blood transaminases
D. Hyperglycemia
E. The level of alkaline phosphatase in the blood
18. The patient complains of pain in the upper abdomen, shingles, aggravated after eating fatty and spicy food, repeated vomiting that does not bring relief. On palpation, pain in the left costovertebral angle, as well as pain when tapping this area with the edge of the palm (tail symptom). Your preliminary diagnosis:
A. Chronic pancreatitis, exacerbation
B. Chronic non-calculous cholecystitis, exacerbation
C. Chronic calculous cholecystitis, exacerbation
D. Chronic active hepatitis, exacerbation
E. Chronic autoimmune hepatitis, exacerbation
19. A patient registered with a diagnosis of chronic gastritis during the period of exacerbation developed abdominal pain, belching of a rotten egg, vomiting of food taken the day before. The patient's disease worsened
A. stenosis
V. perforation
C. malignancy
D. bleeding
E. penetration
20. A 42-year-old patient with complaints of pain in the epigastric region and a single vomiting during an objective examination revealed pallor of the skin, cold clammy sweat, blood pressure 100/50 mm Hg. Art., a symptom of Shchetkin-Blumberg. The complication of peptic ulcer you suspect:
A. pyloric stenosis

B. perforation
C. penetration
D. bleeding
E. Malignancy

**Situational tasks**

**№ 1.** A 42-year-old patient was admitted to the hospital with complaints of dull, aching pain in the epigastric region, which appeared after eating after 30-50 minutes, weakness, loss of appetite. Objectively: General condition is relatively satisfactory. The skin and visible mucous membranes are pale. Vesicular breathing in the lungs. NPV 20 in 1 min. Heart sounds are muffled, the rhythm is correct. The abdomen is soft, painful on palpation in the epigastric region. Stool - prone to constipation.
On examination:
**GBA:** HB-98g / l, ER - 2.3 x 1012. / l, CPC -0.85, ESR -10 mm / h Leukocytes - 9x109 / l, Basophils -1% Eosinophils -4%; P / I - 5%; S/I -45%; Reticulocytes - 15%; Platelets -180x109/l Serum iron - 8.8 mmol / l.
**FGDS:** The gastric mucosa in the antrum is edematous, has a spotted appearance with grayish areas on the background of hyperemia. The mucosal folds are thickened, the walls of the antrum are malelastic, with inflammatory changes. The lumen of the stomach is narrowed. The cavity contains a large amount of mucus. Histology: Infiltration of the lamina propria and epithelium with lymphocytes, foci of intestinal metaplasia. HP +++ Blood type O (I).
**Assignment to the situational task:**
1. Formulate a diagnosis.
2. Make an examination plan.
3. Treatment.

**№ 2.** A 43-year-old patient went to the doctor with complaints of general weakness, a feeling of heaviness, dull pain in the epigastric region, an unpleasant taste in the mouth, decreased appetite, nausea, belching with air, rumbling and transfusion in the abdomen after eating, unstable stools.
Objectively: General condition of moderate severity. The skin is dry, "jamming" in the corners of the mouth, trophic changes in the nails. In the lungs, vesicular breathing, NPV 16 per minute. Heart sounds are muffled, the rhythm is correct. The tongue is covered with a dirty white coating. On palpation of the abdomen diffuse tension of the anterior abdominal wall in the epigastrium.
**GBA:** HB -103 g / l, ER - 3.0x1012 / l, leukocytes - 3.2x109 / l, eosinophils - 3%, basophils - 0%, p / i - 5%, s / i -45 %, lymphocytes - 30%, monocytes - 8%.
**X-ray examination:** The relief of the mucous membrane is smoothed, hypotension, sluggish peristalsis, accelerated evacuation of the contrast. Hypotension, hypokinesia. Histological examination: Atrophy of the glandular epithelium, intestinal metaplasia, a small amount of HP in the mucous membrane of the antrum and in the body of the stomach.
**Assignment to the situational task:**
1. Formulate a diagnosis.
2. Make an examination plan.
3. Treatment.

**1.Theme № 7:** Chronic pyelonephritis in GMP.

**2. Learning goals:**

- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**3.Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**
- substantiate and clearly state the educational material;

- to use theoretical knowledge in the performance of practical tasks;

- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 8 class

**7. Bibliography:**

26. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
27. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
28. Clinical protocol for the treatment and diagnosis of Chronic kidney disease, dated May 13, 2016 No.3.
29. Clinical protocol for the treatment and diagnosis of diseases of the genitourinary system, dated March 29, 2019 No.60.

**8. Control:**

**Test questions**

1. A woman with a gestational age of 8-10 weeks applied to the outpatient clinic with complaints of chilling, fever up to 37.4-38.00C, pain in the lumbar region. History: previously treated for kidney disease. A positive symptom of tapping. OAM: protein 0.066 g/l, leukocyturia, pyuria, erythrocytes 8-10 in the field of view, epithelial cells 6-8 in the field of view. Make a diagnosis.
A. acute pyelonephritis

B. Nephropathy of pregnancy
C. chronic pyelonephritis
D. chronic glomerulonephritis
E. dysmetabolic nephropathy
2. In a 19-year-old patient, in the general analysis of urine, the specific gravity is 1028, protein is 3.0 g/l, leukocytes are 8-10 in the field of view, erythrocytes are 20-30 in the field of view, cylinders (hyaline) are 7-10 in the field of view. What disease is characterized by changes in urinalysis:
A. acute pyelonephritis
B. acute glomerulonephritis
C. chronic pyelonephritis
D. chronic renal failure
E. chronic glomerulonephritis
3. A 29-year-old patient consulted a doctor with complaints of back pain on the right side, headaches, fever up to 380C, frequent urination. Sick for more than 4 years, was treated repeatedly. Exacerbation of the disease occurred after hypothermia of the legs. Objectively: the face is puffy, pale, pasty eyelids. Positive symptom of Pasternatsky. Blood test: Hb - 114 g / l, leukocytes - 9.8x109 / l; ESR - 34 mm/hour. Urinalysis: specific gravity - 1025, protein -0.99 g / l, Leukocytes - completely in the field of view; hyaline casts -2-4 in the field of view. What research should be done to clarify the diagnosis:
A. immunological blood test
B. Zimnitsky functional test
C. urine culture for Mycobacterium tuberculosis
D. Reberg-Tareev test
E. bacteriological examination of urine
4. A 48-year-old patient consulted a general practitioner complaining of headaches, swelling in her legs, shortness of breath when walking, weakness, poor appetite. Kidney disease for 10 years. Objectively: swelling of the feet, legs. In the general blood test: Hb–96 g/l; Erythrocytes - 2.8x1012 / l; Leukocytes - 8.8x109 / l; ESR–35 mm/hour. Urea - 16 mmol / l, creatinine - 0.250 mmol / l. Urinalysis: specific gravity - 1005; protein-4.5 g/l; leukocytes - 6-10 in the field of view; erythrocytes - 20-25 in the field of view; hyaline cylinders - 2-3 in the field of view. What examination is necessary to clarify the clinical diagnosis?
A. bacteriological examination of urine
B. definition of Bence-Jones protein
C. definition of glomerular filtration
E. urine culture for Mycobacterium tuberculosis
E. Nechiporenko test
5. A 43-year-old patient, an engineer, consulted a general practitioner with severe edematous syndrome and gross hematuria. After the examination, the diagnosis was made: acute glomerulonephritis, nephrotic syndrome. Treatment strategy:
A. Glucocorticosteroid drugs
B. non-steroidal anti-inflammatory
C. quinidine derivatives
D. preparations of gold
E. antibacterial agents
6. A young girl complains of fever, back pain on the left, frequent urination. History of cystitis. In the blood test, the ESR is 27 mm / h, Leukocytes are 9.9 * 109 / l. In the urine, leukocytes are completely, erythrocytes are 0-2 in the field of view. Choose the correct diagnosis:

A. Urolithiasis
B. Uric acid diathesis
C. Chronic pyelonephritis
D. Glomerulonephritis
E. Tubulointerstitial nephritis
7. A 19-year-old patient first experienced frequent painful urination with a feeling of discomfort. Objectively: the patient's condition is satisfactory, the skin is moderately moist, hemodynamic parameters are stable. In blood tests without pathology. In OAM: leukocytes 8-9 in the field of view, specific gravity-1012, erythrocytes 0-1 in the field of view. Your diagnosis:
A. Acute cystitis
B. Acute glomerulonephritis
C. Acute renal failure
D. Acute pyelonephritis
E. Exacerbation of chronic pyelonephritis
8. A 37-year-old woman complains of pain in the lumbar region, frequent urination. In the anamnesis 5 years ago after childbirth, she was worried about pain in the lumbar region, fever, dysuria. Objectively: the temperature is 370C. The symptom of percussion of the lumbar region is positive on both sides. In the blood: leukocytes - 6.1x 109 / l, ESR - 20 mm / h. Urinalysis: specific gravity -1005, protein - 0.033 g / l, leukocytes - 6-8 in the field of view. Nechiporenko test: erythrocytes - 1 x 106 / l, leukocytes - 6 x 106 / l. Which drug is most appropriate to include in the treatment program:
A. Lincosamines
B. Penicillins
C. Tetracyclines
D. Aminoglycosides
E. Nitrofuran Compounds

9. A 48-year-old patient consulted a general practitioner complaining of headaches, swelling in the legs, shortness of breath when walking, weakness, and poor appetite. Kidney disease for 10 years. Ob-but: swelling of the feet, legs. In the general blood test: Hb–96 g/l; Er.–2.8x1012/l; Lake - 8.8x109 / l; ESR–35 mm/h. Urea - 16 mmol / l, creatinine - 0.250 mmol / l. General analysis of urine: beats. weight - 1005; protein-4.5 g/l; leuk. - 6-10 in p / sp; er. - 20-25 in p / sp; hyaline cylinders - 2-3 in p / sp. These signs are typical for:
A. polycystic kidney disease
B. urolithiasis
C. chronic pyelonephritis
D. chronic renal failure
E. chronic.
10. A 43-year-old patient, an engineer, consulted a family doctor with severe edematous syndrome and gross hematuria. After the examination, the diagnosis was made: acute glomerulonephritis, nephrotic syndrome. Treatment tactics:
A. glucocorticosteroid drugs
B. non-steroidal anti-inflammatory
C. quinidine derivatives
D. preparations of gold
E. antibacterial agents
11. A 45-year-old patient has been suffering from a hypertensive variant of CGN for 10 years, GFR according to the Cockcroft-Goult formula 35 ml/min. Determine the stage of CKD

A. CGN, hypertensive variant, CKD 1 degree
C. CGN, hypertensive variant, CKD 3 st
C. CGN, hypertensive variant, CKD 2 st
D. CGN, hypertensive variant, CKD 4 st
E. CGN, hypertensive variant, CKD 5 st
12.Clinical syndrome characterized by severe proteinuria >3.5g, hypoalbuminemia, hyperlipidemia, and edema
A. Urinary syndrome
B. Acute renal failure
C. Nephritic syndrome
D. Chronic renal failure
E. Nephrotic syndrome
13. A 60-year-old patient was admitted to the department with complaints of pain in the lumbar region, dysuric phenomena, and had repeatedly received treatment for the above complaints. In the general analysis of urine, the relative density is 1007; protein 0.05 g/l, leukocytes - 20-30 in the field of view, no erythrocytes, bacteriuria - +++. In the blood: creatinine -0.23 μmol/l. What is the preliminary diagnosis?
A. Acute cystitis
B. Acute pyelonephritis
C. Chronic glomerulonephritis
D. Acute glomerulonephritis
E. Chronic pyelonephritis

14. A 15-year-old female patient was treated with a diagnosis of acute pyelonephritis in a day hospital. As a result of the therapy, the patient's condition improved: the temperature returned to normal, the symptoms of intoxication decreased, she urinates freely, but leukocyturia remains up to 10-15 in the field of view in urine tests. She is taking medication.
What drugs are the most effective?
A. Uroseptics
B. Antihypertensives
C. Antiplatelet agents
D. Diuretics
E. Hormonal preparations
15. A 49-year-old patient has been suffering from kidney disease for many years. On examination, slight pastosity of the face and eyelids is noted. BP is elevated. The kidneys are painful on palpation. Urinalysis: hypostenuria 1007-1010, leukocyturia, microhematuria. On ultrasound: the size of the kidneys is enlarged, the contours are uneven, cavities with a diameter of up to 2x3 cm are determined in both kidneys. What disease can you think of:
A. urolithiasis
B. polycystic kidney disease
C. chronic pyelonephritis
D. chronic glomerulonephritis
E. kidney tuberculosis
16. A 35-year-old patient complains of pain during urination, pain in the lumbar region more on the right, fever. In the general analysis of urine, the specific gravity is 1024, protein - traces, leukocytes up to 100 in the field of view, erythrocytes - 2-3 in the field of view, bacteria +++, mucus +++. What disease is the following typical for?
A. acute glomerulonephritis

B. chronic glomerulonephritis
C. acute pyelonephritis
D. chronic pyelonephritis
E. interstitial nephritis
17. An 18-year-old patient complained of edema on the face, headache, aching pain in the lower back, decreased urination. He considers himself sick for 3 days. 2 weeks ago I had a sore throat. Objectively: the temperature is 37.7°C. Swelling of the face, feet and legs. The skin is pale. Respiration is vesicular. Heart sounds are rhythmic, muffled. Pulse 84 per minute. BP 165/100 mmHg The abdomen is soft and painless. Pasternatsky's symptom is weakly positive on both sides. What is the most likely diagnosis?
A. Acute pyelonephritis
B. Urolithiasis
C. Kidney tuberculosis
D. Renal amyloidosis
E. Acute glomerulonephritis
18. A 32-year-old patient complained of chills, fever, aching pain in the lower back on the right, frequent painful urination. The disease is associated with hypothermia. She has a history of frequent cystitis. Objectively: the temperature is 38°C. Respiration is vesicular. Heart sounds are muffled, rhythmic, heart rate is 92 per minute, blood pressure is 120/80 mm Hg. The abdomen is soft, there is pain along the outer edge of the rectus abdominis muscle on the right at the level of the costal arch and inguinal fold. Pasternatsky's symptom is positive on the right. What is the most likely diagnosis?
A. Tuberculosis of the kidneys
B. Glomerulonephritis
C. Pyelonephritis
D. Renal amyloidosis
E. Urolithiasis
19. In a patient with chronic glomerulonephritis in the blood serum: residual nitrogen 56.1 mmol/l, creatinine 0.38 μmol/l, urea 16.9 mmol/l. GFR = 50 ml/minute. Which of the following is the most likely explanation for these data?
A. development of acute renal failure in a patient
B. development of CKD
C. exacerbation of chronic glomerulonephritis
D. transient azotemia
E. secondary infection
20. A 15-year-old teenager has leukocyturia and bacteriuria in OAM, leukocytosis, neutrophilia, and elevated ESR in KLA. Objectively: fever, symptoms of intoxication. Which of the following is the most appropriate next step in diagnosis:
A. Excretory urography
B. Urinalysis according to Nechiporenko
C. Ultrasound of the kidneys
D. cystoscopy
E. endogenous creatinine clearance.

## Situational tasks

**№ 1.** Patient N., 18 years old, went to the doctor with complaints of edema on the face, lower extremities, headache, aching pain in the lumbar region, general weakness, appearance of cloudy

pink urine. He considers himself sick for 3 days. Past illnesses: influenza, 2 weeks ago - tonsillitis. Objectively: body temperature is 37.70C. General condition of moderate severity. The face is edematous, edema on the feet and legs. The skin is pale. Respiration is vesicular. The heart sounds are rhythmic, muffled, the accent of the second tone is on the aorta. Pulse 84 beats/min, rhythmic, intense. BP - 165/100 mm Hg. Art. language is clean. The abdomen is soft and painless. Pasternatsky's symptom is weakly positive on both sides.

**Assignment to the situational task:**

1. Formulate and substantiate a preliminary diagnosis.
2. Name the necessary additional studies.
3. List possible complications.
4. Assign a treatment plan.

**№ 2.** A 32-year-old patient went to the doctor with complaints of tremendous chills, fever, aching pain in the lower back on the right, frequent painful urination. He associates his disease with hypothermia. History of frequent cystitis. Objectively: general condition of moderate severity. Body temperature 380C. The skin is clean. Respiration is vesicular. Heart sounds are muffled, rhythmic. Heart rate - 92 beats / min. BP - 120/80 mm Hg. Art. The language is clean. The abdomen is soft, there is pain along the outer edge of the rectus abdominis muscle on the right at the level of the costal arch, navel and inguinal fold. Pasternatsky's symptom is positive on the right.

**Assignment to the situational task:**

1. Formulate and substantiate a preliminary diagnosis.
2. Name the necessary additional studies.
3. List possible complications.
4. Assign a treatment plan.

**1.Theme № 8:** Iron deficiency, B12-deficiency anemia, acute and chronic leukemia in GMP.

**2. Learning goals:**

- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**3.Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**

- substantiate and clearly state the educational material;
- to use theoretical knowledge in the performance of practical tasks;
- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 9 class

**7. Bibliography:**

30. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
31. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
32. Clinical protocol for the treatment and diagnosis of Iron deficiency anemia, dated October 5, 2017 No.29.

**8. Control:**

**Test questions**

1. A 38-year-old patient has hypochromic microcytic anemia. From the anamnesis: chronic enteritis for 5 years. Assigned per os ranferon causes nausea, vomiting and discomfort in the epigastrium. Tactics of treatment of this patient
A. Prescribe iron preparations parenterally
B. Add cerucal to the treatment
C. Reduce the dose of ranferon
D. Transfuse red blood cells
E. Prescribe another iron preparation per os
2. A 25-year-old patient complains of pain in the epigastric region, weakness, fatigue, shortness of breath on exertion. In history - peptic ulcer of the stomach. Objectively: pallor and dryness of the skin, thinning nails, muffled heart sounds, systolic murmur at the apex, heart rate 86 per minute, blood pressure 100/60 mm Hg. Art. Blood test: Hb - 85 g / l, erythrocytes - 2.8x 1012 / l, CP - 0.75, platelets - 165.0x109 / l, reticulocytes - 0.5%. bilirubin - 15 μmol/l, serum iron - 3.5 mmol/l. Gregersen's reaction is positive. Your presumptive diagnosis:
A. Aplastic anemia
B. Hemolytic anemia
C. Acute posthemorrhagic anemia
D. Iron deficiency anemia
E. B12 deficiency anemia
3. In a 60-year-old patient, the examination revealed Hb 78g/l., CP - 1.3, erythrocytes 2.3x1012 /l, macrocytosis. In the anamnesis: for many years he suffers from a chronic disease of the stomach and intestines. What treatment should be prescribed to a patient with this disease?
A. Cyanocobalamin injections
B. Red blood cell transfusion
C. Ferkail injections
D. Taking ferrous sulfate
E. Taking ascorbic acid
4. A 47-year-old woman consulted a general practitioner with complaints of general weakness, dizziness, and palpitations. During 1 year menstruation for 10 days, profuse. Objectively: pale

skin and mucous membranes, striated and brittle nails, hair loss, tachycardia up to 100 per minute, blood pressure 110/60 mm Hg. In the blood: hemoglobin - 62 g / l, erythrocytes - 2.6 x 1012 / l, color index - 0.7, ESR - 36 mm / h, leukocytes - 5.8x109 / l, platelets - 420 x 109 / l. Consulted by a gynecologist: Uterine fibroids, 12 weeks. Recommended surgical treatment.
Which of the following is the most appropriate management strategy for this patient?
A. Parenteral iron preparations
B. Parenteral vitamin B12
C. Folic acid per os
D. Parenteral ascorbic acid
E. Red blood cell transfusion

5. A 32-year-old patient complains of general weakness, fatigue, dizziness, "flies" before her eyes, shortness of breath, brittle nails. From the anamnesis: 7 pregnancies, 4 of them miscarriages, menstruation 5-7 days, abundant. Objectively: the skin and visible mucous membranes are pale, dry, clean. Nails are soft and break easily. In the corners of the mouth there are "jams". Complete blood count: hemoglobin-62 g/l, erythrocytes-2.6x1012/l, platelets-180x109/l, leukocytes-4.9x109/l, erythrocyte sedimentation rate-30mm/h. Serum iron - 7.2 μmol / l, serum ferritin - 10.82 ng / ml.
Which of the following drugs is the most appropriate for treatment?
A. Vitamin B12
B. Folic acid
S. sorbifer durules
D. Ascorbic acid
E. Erythropoietin

6. A 39-year-old man consulted a general practitioner with complaints of dizziness, shortness of breath, fatigue, paresthesia in the extremities, and a tendency to diarrhea. On examination, the skin is yellowish in color, smoothing of the papillae of the tongue, signs of glossitis. The patient underwent gastrectomy 2 years ago. Hyperchromic anemia is noted. Puncture of the bone marrow: megaloblastic type of hematopoiesis. An increase in the level of ferritin in the blood was revealed.
What is the preliminary diagnosis?
A. iron deficiency anemia
B. B12 deficiency anemia
C. autoimmune hemolytic anemia
D. congenital hemoglobinopathies
E. aplastic anemia

7. A 39-year-old man consulted a general practitioner with complaints of dizziness, shortness of breath, fatigue, paresthesia in the extremities, and a tendency to diarrhea. On examination, the skin is yellowish in color, smoothing of the papillae of the tongue, signs of glossitis. The patient underwent gastrectomy 2 years ago. Hyperchromic anemia is noted. Puncture of the bone marrow: megaloblastic type of hematopoiesis. An increase in the level of ferritin in the blood was revealed.
What changes in general blood tests are typical for this pathology?
A. macrocytosis
B. microcytosis
C. anisocytosis
D. poikilocytosis
E. hypochromia

8. A 40-year-old man turned to a family doctor with complaints of weakness, dizziness, flies flickering before his eyes. Objectively: the general condition is relatively satisfactory, there is pallor of the skin and mucous membranes. Erythrocytes - 3.6 x 109 g / l, hemoglobin - 100 g / l, color index - 0.83, serum iron - 9 μmol / l. The total iron-binding capacity of serum is 76 μmol/l. What medication should be prescribed to this patient?
A. Vitamin B12 200 mcg IM every other day
B. prednisolone 20 mg/day
C. ferrous sulfate 150 mg/day
D. folic acid 5 mg/day
E. vitamin E 200 mg/day

9. A 62-year-old patient has been ill for a year: he complains of weakness, enlargement of the cervical, axillary, and inguinal lymph nodes. Lymph nodes are soft, painless on palpation. Blood test: Leuk.- 40 * 109 / l (e-1%, n-3%, s-15%, l-75%, m-6%). What examination should be done to verify the diagnosis.
A. determination of leukocyte blood count
B. puncture of the lymph node
C. radioisotope study of the lymphatic system
E. lymph node biopsy
E. sternal puncture
10. Patient E., 74 years old, was admitted with complaints of general weakness, dizziness, shortness of breath, epigastric pain, heaviness after eating, belching rotten. Objectively revealed moderate splenomegaly, decreased tactile sensitivity on the right lower limb of the "stocking" type. In UAC: Er. 2.5*1012/l; Hb - 88 g / l, CP - 1.1, Leukocytes - 3.2 * 109 / l, platelets - 150 * 109 / l, reticulocytes - 0.2%; bilirubin - 42 mmol/l (indirect fraction 33 mmol/l). What treatment is necessary for this patient?
A. iron preparations
B. steroid drugs
C. cyanocobalamin
D. transfuse red blood cells
E. immunostimulants
11. A 68-year-old patient was admitted with complaints of weakness, sweating, weight loss by 10 kg over the past two years. There is an increase in all groups of lymph nodes and a moderate increase in the liver and spleen. In the general blood test: Hb - 85 g / l, Er -3.0 * 1012 / l, Leukocytes - 135.0 * 109 / l, P - 3%, lymph.-96%, mon.-1%, shadows Botkin-Gumprecht, ESR– 28 mm/hour. Serum iron - 28 mmol / l. A research method sufficient to confirm the main diagnosis in this case:
A. Blood chemistry
B. trepanobiopsy of the ilium
C. puncture of the spleen
E. lymph node biopsy
E. sternal puncture
12. A 30-year-old patient was hospitalized with pain in the epigastric region with severe circulatory-hypoxic syndrome. In history - peptic ulcer 12 duodenal ulcer. The skin is pale. Blood test: Hb–90g/l; Er–3.5*1012/l, CP–0.7; platelets - 80.0 * 109 / l, reticulocytes - 0.5%. Bilirubin - 12 μmol / l, serum iron - 4.6 mmol / l. Gregersen's reaction is positive. Your diagnosis:
A. aplastic anemia

B. hemolytic anemia
C. acute posthemorrhagic anemia
D. B12 deficiency anemia
E. chronic posthemorrhagic anemia
13. A 30-year-old patient was hospitalized with severe circulatory-hypoxic syndrome. She has a history of chronic hemorrhoids. The skin is pale. Blood test: Hb - 80 g/l, er. - 2.5 x1012 / l, CP - 0.7, platelets - 180.0 x109 / l, reticulocytes - 0.5%. Bilirubin - 12 μmol/l, serum iron - 4.6 mmol/l. Gregersen's reaction is positive. What drugs should be used to treat the patient:
A. iron preparations
B. steroid drugs
C. antimicrobials
D. transfuse red blood cells
E. B vitamins
14. Hemoglobin level at which mild anemia is diagnosed:
A. < 120 g/l
B. < 110 g/l
C. < 90 g/l
D < 85 g/l
E. < 80 g/l
15. A 35-year-old man with a history of colonic diverticulosis. The examination revealed: erythrocytes 3.0x1012/l, hemoglobin 120 g/l, color index 1.3; macrocytosis, Jolly bodies, reticulocytes 1%, leukocytes 3.0x109/l, ESR 14 mm/h, platelets 160,000, serum iron 20 μmol/l. Which of the following groups of drugs is most indicated?
A. Folic acid preparations
B. Cyanocobalamin preparations
C. Iron preparations
D. Pyridoxine preparations
E. Glucocorticosteroid drugs
16. A 50-year-old man underwent gastric resection three years ago. After surgery, hemoglobin was 135 g/L. During the year, the condition worsened, severe weakness, flies flickering before the eyes. In the general blood test: erythrocytes 3.0x1012/l, hemoglobin 63 g/l, color index 0.62; leukocytes 3.7x109/l, ESR 13 mm/h, anisocytosis, microcytosis. Serum iron 6.3 microns/l. The decrease in what indicators was the cause of this condition?
A. cyanocobalamin
B. Platelets
C. Ascorbic acid
D. Folic acid
E. gland (II)
17. Woman 34 years old. pregnancy 32-33 weeks. Complaints of dizziness, fatigue, weakness, shortness of breath, palpitations. Eats clay, chalk. Chronic gastritis from the age of 18. Objectively: low nutrition, dry skin. Nails thinned, brittle. Pulse 76 beats per minute. BP - 90/60 mm Hg. The fetal heartbeat is clear, rhythmic 136 beats per minute. In the General analysis of blood: Erythrocytes - 2.5 * 10 / l; HB - 82 g/l; Color indicator - 0.7; Leukocytes - 4.8 * 10 / l; ESR - 5 mm / h. Prescription of which group of drugs from the listed is most appropriate?
A. Calcium preparations
B. B vitamins
C. folic acid preparations
D. Ascorbic acid preparations

E. Iron preparations
18. A 15-year-old patient complains of soreness of the tongue, aversion to meat, aphthae in the mouth, sensation of cottony legs, hallucinations, and frequent loose stools. Objectively: the skin and sclera are icteric, dry. Hair and nails are brittle. Lacquered tongue. Heart sounds are muffled. Liver + 1 + 1 + 0.5 cm, spleen + 1 cm. Complete blood count: erythrocytes - 3.5x 1012 / l with Jolly bodies and Cabot rings, hemoglobin -85 g / l, color index - 1.3, leukocytes - 7.0x109/l, ESR - 14 mm/h, reticulocytes - 34%, platelets 140 x109/l.
Which of the following is the most appropriate treatment?
A. Splenectomy
B. Vitamin B12
S. ferum Lek
D. Folic acid
E. Prednisolone
19. A patient, 38 years old, complains of pain in the abdomen, diarrhea alternating with constipation, bloating, and occasional vomiting. Examination revealed a diverticulum of the small intestine, hyperchromic macrocytic anemia, and neurological symptoms. Suggested diagnosis:
A. B12 deficiency anemia due to an increased need for vitamin B12
B. folate deficiency anemia
C. iron deficiency anemia
E. B12 deficiency anemia due to intrinsic factor deficiency
E. B12 deficiency anemia due to malabsorption
20. Anemia in chronic renal failure is caused by:
A. a decrease in the synthesis of erythropoietins
B. iron deficiency
C. vitamin B12 deficiency
D. autoimmune hemolysis
E. folic acid deficiency

## Situational tasks

**№ 1.** Patient G., aged 50, a teacher, complains of general weakness, dizziness, flickering of "flies" before her eyes, shortness of breath and palpitations with little physical exertion, difficulty swallowing dry and solid food.
Considers himself ill for 2 years. The disease developed gradually. By the end of the day, she began to notice malaise, headache, and general weakness. For the last 6 months, the patient had a desire to eat chalk, tooth powder, brittle nails appeared. Relatives drew attention to the pallor of the patient's face. Haven't had any pain in the past. She has a history of 8 pregnancies, including 3 deliveries and 5 abortions. The last 6 years of menstruation for 5-6 days, plentiful. The patient's condition is moderate. Pale face. The skin is dry. Peripheral lymph nodes are not enlarged. The nails are spoon-shaped. Vesicular breathing in the lungs. Heart sounds are muffled, systolic murmur over all listening points. The pulse is rhythmic, 96 per minute. BP 100/70 mmHg Art. The tongue is smooth, the papillae are atrophied. The abdomen is soft, the liver and spleen are not palpable. Complete blood count: erythrocytes - 2.5x1012 / l, hemoglobin - 60g / l, color index - 0.7, reticulocytes - 0.6% o, platelets - 180x109 / l, leukocytes - 7.0x109 / l, eosinophils -2 %, stab

- 5%, segmented - 39%, lymphocytes - 28%, monocytes - 8%, ESR - 30 mm/hour. Anisocytosis, poikilocytosis are pronounced. Hypochromia of erythrocytes.

**Assignment to the situational task:**

1. Formulate diagnosis.
2. Necessary additional studies.
3. List possible complications.
4. Treatment plan.

**№ 2.** Patient E., aged 42, a shop assistant, turned to the local doctor with complaints of decreased performance, increasing general weakness, and sometimes burning of the tongue.

During the last year, she began to notice general weakness, malaise, and palpitations during physical exertion. For 6-8 months, she noticed brittle nails, she became addicted to the smell of kerosene, acetone. Didn't go to the doctor. She has a history of 6 pregnancies, including 4 deliveries and 2 abortions. Menstruation for 5-6 days, regular, plentiful. The patient's condition is satisfactory. The skin is dry. Subcutaneous adipose tissue is well expressed. Nails thinned, brittle. Cracks in the corners of the mouth. Tongue with atrophied papillae, smooth. Vesicular breathing in the lungs. Heart sounds are muffled, rhythmic, 82 per minute. BP 115/60 mmHg Art. The abdomen is soft, the liver and spleen are not palpable. Complete blood count: erythrocytes - 4.0x1012 / l, hemoglobin - 120g / l, color index - 0.9, reticulocytes - 0.5% o, platelets - 180x109 / l, leukocytes - 7.0x109 / l, eosinophils -1 %, stab - 4%, segmented - 58%, lymphocytes - 29%, monocytes - 8%, ESR - 30 mm/hour.

**Assignment to the situational task:**

1 Formulate diagnosis.
2. Necessary additional studies.
3. List possible complications.
4. Treatment plan.

**1.Theme № 9:** Diabetes mellitus, obesity in GMP.

**2. Learning goals:**

- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**3.Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**

- substantiate and clearly state the educational material;
- to use theoretical knowledge in the performance of practical tasks;

- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 10 class

**7. Bibliography:**

33. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
34. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
35. Clinical protocol for the treatment and diagnosis of Diabetes mellitus, dated March 4, 2022 No.158.
36. Clinical protocol for the treatment and diagnosis of Obesity, dated August 18, 2017 No.26.

**8. Control:**

**Test questions**

1. What causes the pathogenesis of type 2 diabetes mellitus:
a) reversible binding of insulin circulating in plasma by antibodies
b) increased function of the adrenal cortex
c) impaired secretion of somatostatin
d) violation of insulin secretion and sensitivity of peripheral tissues to insulin
2. Risk factors for type 2 diabetes include all of the following except:
a) impaired glucose tolerance
b) impaired fasting glycemia
c) a history of gestational diabetes mellitus
d) the birth of a child weighing 3200 g.
3. 1 XE corresponds to:
a) 10-12 g of carbohydrates
b) 15g carbohydrates
c) 8-15g carbohydrates
d) 2 g of carbohydrates
4. In the pathogenesis of type 2 diabetes mellitus, all of the listed links are distinguished, except:
a) insulin resistance
b) relative insulin deficiency
c) defect in insulin secretion with insulin resistance
d) destruction of □-cells of the pancreas, leading to absolute insulin deficiency
5. What cells produce insulin?
a) B cells of the islets of Langerhans
b) A-cells of the islets of Langerhans
c) D-cells of the islets of Langerhans
d) PP cells
6. The clinic of type 2 diabetes mellitus is characterized by all of the following, except:

a) increased appetite
b) obesity
c) dry mouth
d) the appearance of hand tremors
7. The drug of choice at the 1st stage of treatment of type 2 diabetes mellitus with an initial HbA1c of 6.5 - 7.0%:
a) metformin
b) a sulfonylurea drug
c) basal insulin
d) analogue of human insulin
8. Fiber performs all of the following functions in the body, except for:
a) slowing down the absorption of glucose into the blood
b) normalization of lipid metabolism
c) stimulation of intestinal peristalsis
d) is an additional source of energy
9. OGTT-oral glucose tolerance test is carried out using:
a) 50 g of glucose
b) 25 g glucose
c) 75 g glucose
d) 60 g of glucose
10. Which drug is not a DPP-4 inhibitor:
a) vildagliptin
b) saxagliptin
c) sitagliptin
d) repaglinide
11. Combined sugar-lowering drugs include all of the following except:
a) comboglise
b) Amaryl M
c) Janumet
d) Diabeton MV
12. What is not a pathogenetic link in type 2 diabetes mellitus:
a) insulin resistance
b) compensatory hyperinsulinemia
c) production of autoantibodies to beta cells of the islets of Langerhans
d) dysfunction of beta cells of the islets of Langerhans
13. Which of the following drugs does not have a glucose-dependent effect:
a) Januvia
b) Galvus
c) Ongliza
d) Novonorm
14. Combined insulins include:
a) Tresiba
b) Novorapid
c) Rayzodeg
d) Lantus
15. What amount of XE should be prescribed for overweight:
a) less than 12 XU/day
b) less than 15 XU/day

c) less than 10 XU/day
d) less than 8 XU / day
16. What drug belongs to the group of SGLT-2 inhibitors:
a) Forsiga
b) Trajent
c) Tresiba
d) Byeta
17. The mechanism of action of Metformin is all of the following except:
a) has an extrapancreatic effect
b) reduces the production of glucose by the liver
c) increases the sensitivity of peripheral tissues to insulin
d) stimulates the function of beta cells of the islets of Langerhans
18. What drug is an analogue (agonist) of GLP-1?
a) liraglutide
b) glargine
c) alagliptin
d) repaglinide
19. At what initial level of HbA1c is the issue of insulin prescription decided:
a) > 7.5% 182
b) > 8.0%
c) > 8.5%
d) > 9.0%
20. What is the maximum HbA1c target:
a) < 9.0%
b) < 8.5%
c) < 8.0%
d) < 7.5

## Situational tasks

**№ 1.** Patient 37 years old. She turned to the therapist about weakness, rises in blood pressure during stress up to 165/110 mm Hg. Art. and visual impairment.
Anamnesis of the disease: was born with a body weight of 4.7 kg.
The family history is aggravated: the grandmother suffers from diabetes mellitus. Recently, frequent stress at work, works as a programmer. Objectively: height - 164 cm, weight - 86 kg, BMI - 32. BP - 145/95 mm Hg. Art. Breathing is vesicular, heart sounds are muffled, rhythmic. Pulse - 89 beats per minute. Data from additional studies: Fasting glucose - 6.7 mmol/l, 2 hours after eating - 10.2 mmol/l C-peptide-900 pmol/l (N-150-1100). HbA1c-7.1%.
**Assignment to the situational task:**
1. Preliminary diagnosis.
2. Additional research.
3. Therapeutic measures.

**№ 2.** Man, 62 years old. Complaints of general weakness, dry mouth, increased amount of urine. He considers himself ill from the moment when 10 years ago, during a preventive examination, an increase in blood glucose levels of 8.2 mmol / l was found. I consulted with an endocrinologist. He was prescribed Siofor 500 mg after breakfast and dinner, which he took for seven years, he had

no complaints for that period, he did not visit a doctor. Three years ago, due to the deterioration of his condition, the patient again turned to an endocrinologist. There were complaints of polyuria, thirst, dry mouth, fasting glucose level of 8.8 mmol/l, 2 hours after eating up to 15.0 mmol/l. The dose of siofor was increased to 1000 mg twice daily and maninil 1.75 mg twice daily was added before breakfast and dinner. There was an improvement in the condition, blood glucose levels decreased. However, during the last 6 months I lost 8 kg. The fasting glucose level began to rise more than 10 mmol/l, during the day up to 18-20 mmol/l. Objectively: weight 84 kg, height 172 cm, BMI - 28.5. BP - 160/80 mm Hg. Art. Laboratory and instrumental studies: Glucose on an empty stomach - 11.5 mmol/l, 2 hours after eating 18.2 mmol/l. HvA1c 11.6%. C-peptide - 424 pmol / l (norm 150-1100 pmol / l). Urinalysis - glucose 5%, proteinuria 1.61 ‰. The fundus of the eye: many aneurysms, hemorrhages, tortuosity of blood vessels.

**Assignment to the situational task:**

1. Clinical diagnosis.
2. Tactics of therapeutic measures.

**1.Theme № 10:** Principles of prophylactic medical examination of healthy children.

**2. Learning goals:**

- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**3.Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**

- substantiate and clearly state the educational material;
- to use theoretical knowledge in the performance of practical tasks;
- navigate the flow of information and highlight the main thing;
- clearly formulate the problem, critically evaluate its solution;
- to formulate own position and argue it.

**6. The deadline for task completion:** the 12 class

**7. Bibliography:**

37. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
38. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.

**8. Control:**

**Test questions**

1. The office of a healthy child in a children's clinic provides methodological assistance:
A) pregnant women and young children
B) only for pregnant women
c) a family with middle-aged children
D) a family with young children
2. In the office of a healthy child of a children's clinic, the following is constantly working:
A) a nurse or paramedic
B) local pediatrician
C) pediatrician or nurse
D) medical registrar
3. An assessment of the psychomotor development of a child in the first year of life should be carried out 1 time in:
A) a month
B) year
B) 3 months
D) 6 months
4. Children of the second year of life are examined by a pediatrician 1 time in:
A) quarter
B) 2 months
B) 6 months
D) year 2
5. An assessment of the physical development of a child in the first year of life should be carried out 1 time in:
A) a month
B) year
B) 3 months
D) 6 months
6.A child at the age of 1 month needs to do:
A) CBC and urinalysis
B) blood serum glucose
B) general urinalysis
D) clinical blood test
7. Primary patronage of a newborn is carried out:
A) in the first 3 days after discharge from the maternity hospital

B) on the 10th day of life
B) at the age of one month
D) at the age of 2 months
8.Primary patronage of a newborn is carried out:
A) pediatrician and nurse
B) pediatrician and therapist
C) pediatric neuropathologist and nurse
D) pediatrician and pediatric neurologist
9. Patients with chronic pathology belong to health groups:
A) 3, 4, 5
B) 1, 3, 4
C) 2, 3, 5
D) 2, 3, 4 3
10. Healthy children with normal development and a normal level of development of functions belong to the health group:
A) 1
B) 2
AT 4
D) 5
11. Healthy, but having functional and some morphological abnormalities, as well as reduced resistance to acute and chronic diseases, children belong to the health group:
A) 2
B) 3
AT 4
D) 1]
12.children suffering from chronic diseases in a state of compensation, with preserved functional capabilities of the body, belong to the health group:
A) 3
B) 2
AT 4
D) 5
13. Specify the main section of work in the field of prevention of the district pediatrician with preschool children:
A) dynamic monitoring of the health of children aged from birth to 7 years
B) implementation of rehabilitation treatment
C) organization of dispensary examinations of children by specialist doctors and laboratory diagnostic studies
D) preparing children for entering preschool and school
14. Which of the following birth rates are high:
A) 26-30 per 1000 population
C) 11-15 per 1000 population
C) 16-20 per 1000 population

D) 21-25 per 1000 population

15. A child aged 2 years 10 months has a favorable socio-biological history; in terms of physical development - reduced length, deficiency of body weight of the 1st degree; in neuropsychic development - III group, I degree; acute diseases are absent during the year; hemoglobin 115 g/l, reduced tissue turgor, shortened daytime sleep, increased excitability during wakefulness, neurodermatitis in remission. To which health group would you classify this child:

A. to the fourth
B. to the first
C. to the second
D. to the third

16. How it is expedient to organize the work schedule of the cabinet for raising a healthy child in a polyclinic to ensure high-quality preventive monitoring:

A. depending on the capacity of the clinic
B. 2 times a week
C. daily
D. once a week

17. What is included in the concept of "perinatal mortality":

A. Number of children who die before one year of age per 1,000 live births
B. number of children who died in the first week of life, out of the total
C. alive and dead
D. number of stillborns

18. Indicate the age for which the normal pulse rate is 110-115 beats per minute:

A. 2 years
B. newborn
C. 1 year
D. 5 years

19. Indicate the age for which the normal pulse rate is 135-140 beats per minute:

A. newborn
B. 1 year
C. 2 years
D. 5 years

20. Select the average age rate of the child's respiratory rate for 3 months:

A. 40-60 per minute
B. 30-35 per minute
C. 18-20 per minute
D. 14-20 per minute

## Situational tasks

**№ 1.** During a medical examination of Dinara., 5 years old with the participation of specialists, chronic and morphofunctional abnormalities were not detected. Physical and mental development

corresponds to age, harmonious. For the year preceding the examination, he had ARVI, chickenpox, rubella.

**Question:**

1. Determine which health group the child belongs to.
2. Give recommendations for recovery.
3. Time to complete the task - 15 minutes.

**№ 2.** The role of nursing staff in conducting medical examinations.

**Question:**

1. Give an assessment of the quality and effectiveness of medical examination.
2. Identify the features of the organization of dispensary observation of various categories of patients: war invalids, children, adolescents.
3. Time to complete the task - 15 minutes.

**№ 3.** A 2-year-old boy is at the preventive appointment. Often suffers from colds. Body weight 11.5 kg, length 89 cm.

**Question:**

1. Assess the physical development of the child. Give recommendations on physical education and hardening.
2. Time to complete the task - 15 minutes.

**1.Theme № 11:** Rickets. The consequences of rickets.

**2. Learning goals:**

- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**3.Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**

- substantiate and clearly state the educational material;

- to use theoretical knowledge in the performance of practical tasks;

- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 14 class

**7. Bibliography:**

39. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
40. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
41. Clinical protocol for the treatment and diagnosis of Rickets, dated November 27, 2015 No.17.

**8. Control:**

**Test questions**

1. The concept of "rickets" does not include:
1) hypovitaminosis of vitamin D in children
2) dependence on vitamin d
3) achondropathy
4) "English" disease
5) vitamin D deficiency 2.
2. Ricketogenic diseases include:
1) spasmophilia
2) febrile convulsions
3) nephrogenic osteopathy
4) tubulopathic rickets
5) epilepsy
3. Does not predispose to the development of vitamin d-deficient rickets:
1) solar learning deficit
2) vegetarian food
3) lack of specific prevention
4) feeding with adapted mixtures
5) disease of the small intestine
4. The primary link in the violation of phosphorus-calcium homeostasis in the case of vitamin d-deficient rickets is:
1) hypercalcemia

2) hypophosphatemia
3) phosphaturia
4) hypocalcemia
5) sideropenia
5. A prerequisite for the development of vitamin d-deficient rickets is:
1) increased production of parathyroid hormone
2) increased production of cortisol
3) decreased production of alkaline phosphatase
4) loss of phosphorus salts by the body
5) lowering the production of parathormone
6. Rickets does not happen:
1) scarce
2) dependent
3) resistant
4) immune
5) hereditary
7. Vitamin d-deficient rickets is the most common:
1) in young adults
2) at the age of 10-12 years
3) in the first year of life
4) aged 3-6 years
5) at the age of 7-9 years
8. An early sign of the development of vitamin d-deficient rickets is:
1) deformities of the lower extremities
2) delayed physical development
3) changes on electroencephalography
4) changes in the genome
5) vegetative disorders
9. The least specific for rickets is:
1) the presence of "rib beads"
2) growth retardation
3) the presence of frontal and parietal tubercles
4) X-ray change in the growth zones of tubular bones
5) the presence of hyperplasia of the osteoid tissue in the epiphyseal zones
10. For rickets in the peak period is not typical:
1) decreased appetite
2) the presence of lethargy and low activity of the child
3) increase in alkaline phosphatase numbers
4) the presence of febrile fever
5) the presence of severe phosphaturia
11. Vitamin d-dependent forms of rickets are characterized by:
1) dominant inheritance

2) recessive inheritance
3) polygenic conditionality
4) the occurrence only under the influence of environmental factors
5) the presence of external signs of rickets already at birth
12. In the occurrence of vitamin d-resistant forms of rickets, the leading role is played by:
1) nutritional factor
2) malabsorption
3) treatment of deficient rickets with insufficient doses of vitamin d • 4) poor social conditions
5) tubulopathy
13. For the diagnosis of deficient rickets, the definition is not required:
1) serum calcium levels
2) the content of phosphorus in the blood serum
3) blood glucose concentration
4) Serum alkaline phosphate activity
5) X-ray picture of tubular bones
14. Treatment of deficient rickets is advisable to carry out:
1) pediatrician (family doctor) on an outpatient basis
2) in a somatic hospital
3) in an orthopedic hospital
4) in the conditions of a medical genetic center
5) in an endocrinological hospital
15. The course therapeutic dose of vitamin D in deficient rickets is:
1) 1000 IU
2) 300000 IU
3) 2 million IU
4) 3 million IU
5) 5 million IU
16. The hypocalcemic variant of deficient rickets is not characterized by the presence of:
1) laryngospasm
2) seizures
3) exicose
4) clinical signs of rickets
5) high activity of serum alkaline phosphatase
17. An early sign of recovery from deficient rickets is not:
1) improvement of the x-ray picture
2) normalization of serum phosphorus levels
3) normalization of serum calcium levels
4) decreased activity of alkaline phosphatase
5) increase the activity of the child
18. Vitamin d-deficient rickets does not happen:
1) in the period of convalescence
2) in the incubation period

3) in the heyday
4) in the peak period
5) in the initial period
19. Vitamin d-deficient rickets is:
1) chronic
2) autoimmune
3) recurrent
4) immunocomplex
5) atopic

**Situational tasks**

**№ 1.** Baby 7 months old. Restless, does not sit, does not rest on the legs. On examination, pale skin, flattening of the occiput. Large crown 2.5 x2.8 cm, soft edges. Cranitabes takes place. The chest is flattened from the sides, there is a protrusion in the sternum. The lower edge of the liver is palpated 3 cm below the edge of the costal arch along the midclavicular line. The spleen was enlarged by 1 cm.
**Assignment to the situational task:**

1. Make a diagnosis according to the classification.
2. Justify the course of the disease.
3. What additional examinations can confirm the diagnosis.

**№ 2.** A 10-month-old boy has been treated for acute right-sided pneumonia. In addition to the phenomena of pneumonia, changes in the skeleton are noted: pronounced frontal and parietal tubercles, a large fontanel 2.0 x 1.5 cm, "rosary", "bracelets", "strings of pearls" are palpable, there is an O-shaped curvature of the lower extremities. The child is not worth it.
**Assignment to the situational task:**
1. Formulate a concomitant diagnosis according to the classification.
2. What additional examinations are needed to confirm the diagnosis.

**1.Theme № 12:** Immunoprophylaxis of children and adolescents.
**2. Learning goals:**
- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**3.Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**

- substantiate and clearly state the educational material;

- to use theoretical knowledge in the performance of practical tasks;

- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 15 class

**7. Bibliography:**

42. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
43. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
44. Resolution of the Government of the Republic of Kazakhstan «On approval of the list of diseases for mandatory preventive vaccinations within the guaranteed volume of medical care, the rules, terms and the population groups subject to preventive vaccinations», dated September 24, 2020 No. 612.

**8. Control:**

**Test questions**

1. Active natural immunity is formed by ....
A. Rehabilitation of an infectious disease;
B. Carriage of the pathogen;
B. Introduction of a live vaccine;
D. Administration of a chemical vaccine;
D. Entry into the body of fractional doses of the pathogen when communicating with the source of infection
2. Active artificial immunity is formed by ...
A. Rehabilitation of an infectious disease;
B. Carriage of the pathogen;
B. Introduction of a live vaccine;
D. Administration of a chemical vaccine;
D. Entry into the body of fractional doses of the pathogen when communicating with the source of infection

3. Passive natural immunity is formed by ...
A. administration of a heterologous immunoglobulin;
B. introduction of heterologous serum;
B. introduction of homologous immunoglobulin;
G. introduction of interferon;
D. receiving antibodies to newborns from the mother;
4. Passive artificial immunity is formed by ...
A. administration of a heterologous immunoglobulin;
B. introduction of heterologous serum;
B. introduction of homologous immunoglobulin;
G. introduction of interferon;
D. administration of a recombinant vaccine;
5. From the proposed list, select the biological preparations used to create active immunity: (2)
A) a live vaccine;
B) inactivated vaccine;
C) homologous serum;
D) interferon;
E) bacteriophage
6. From the proposed list, select biological preparations used to create passive immunity: (1)
A) inactivated vaccine;
B) bacteriophage;
C) homologous serum;
D) toxoid;
E) interferon;
7. Select live vaccines from the suggested list: (3)
A) mumps vaccine;
C) typhoid vaccine;
C) BCG
D) leptospirosis vaccine;
E) polio vaccine;
8. Select inactivated vaccines from the list provided: (2)
A) anti-rabies vaccine;
C) typhoid vaccine;
C) BCG
D) anthrax vaccine;
E) polio vaccine;
9. Requirements for vaccine strains for the manufacture of live vaccines:
A) high virulence and pathogenicity;
C) lack of virulence and pathogenicity;
C) a complete set of antigens;
D) the ability to reproduce in the body of the vaccinated;
E) high immunogenicity;

10. For the manufacture of inactivated vaccines, chemicals are used:
A) phenol;
B) formalin;
C) merthiolate;
D) chlorine-containing products;
E) alcohol.

**Situational tasks**

**№ 1.** Among 200 children vaccinated against hemophilic infection, 1 person was identified with a temperature increase above 39 ° C and 3 - up to 37.5 ° C.
Question: What are the next steps for healthcare workers who administer the vaccination?

**№ 2.** There is a patient with tuberculosis in the family.
Question: When can a newborn child vaccinated in the maternity hospital against tuberculosis return home?

**№ 3.** A case of measles was registered in the kindergarten group. All children, with the exception of two who are often ill, are vaccinated against measles.
Question: Is it necessary to carry out specific immunoprophylaxis for contact children? What drug is appropriate to use?

**1.Theme № 16:** Immunoprophylaxis of children and adolescents.
**2. Learning goals:**
- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**3.Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**
- substantiate and clearly state the educational material;

- to use theoretical knowledge in the performance of practical tasks;

- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 16 class

**7. Bibliography:**

45. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
46. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
47. Clinical protocol for the treatment and diagnosis of malnutrition, dated November 6, 2015 No.15.

**8. Control:**

**Test questions**

1. The intervals between feedings and the frequency of feeding depend on
A) from a change in the processes of inhibition and excitation of the food center
B) child's anxiety
B) how long food stays in the stomach
D) the volume of the stomach
2. Breastfeeding is difficult in all conditions except
A) non-closure of the lip and hard palate
B) prognathism
B) loose stools
D) thrush
3. Absolute contraindications on the part of the child to breastfeeding, except
A) severe disorders of cerebral circulation with the threat of intracranial hemorrhage
B) deep prematurity
B) severe forms of respiratory disorders
D) otitis media
4. Absolute contraindications on the part of the mother to breastfeeding are all, except
A) kidney disease with renal insufficiency
B) heart disease with cardiovascular insufficiency
C) severe forms of blood disease and malignant tumors
D) flu
5. The causes of secondary hypogalactia are all except
A) non-compliance with the breastfeeding regimen of the child
B) expressing milk after each attachment to the breast
C) irrational daily regimen and nutrition of a woman

D) lack of expression of breast milk after feeding

6. In case of hypogalactia, everything is recommended except

A) good nutrition

B) low fluid intake

C) fluid intake before and after breastfeeding

D) taking a yeast drink

7. In case of hypogalactia, everything is prescribed, except

A) nicotinic acid

B) vitamin E

B) apilaka

D) nerobola

8. The rules of breastfeeding include everything except

A) diet before the introduction of complementary foods - 6 times a day, after the introduction of complementary foods - 5 times a day

B) diet before the introduction of complementary foods - 7 times a day, after the introduction of complementary foods - 6 times a day

C) the introduction of nutritional supplements from 3 weeks of age

D) the introduction of complementary foods from 4.5-5 months of age

9. Compared to transitional human milk, colostrum contains more

A): squirrel

B) carbohydrates

B) phosphorus

D) saturated fatty acids

10. Compared to mature human milk, colostrum contains more of the listed components, except for

A) protein

B) carbohydrates

B) minerals

D) immunoglobulins

**Situational tasks**

**№ 1.** Baby 1 month old The mother complains about the child's anxiety, poor sleep. A child from the first pregnancy, which proceeded normally. Birth weight 3400 g, length 51 cm. It is breastfed, but feedings are carried out randomly. Restless after feeding. Stool 1 time per day, mushy, without impurities.

Temperature is normal, weight is 3500, length is 54 cm, skin is pale, tissue turgor is reduced. During the control weighing, it was found that the child sucks out 60-80 ml per feeding. There is no milk left in the mammary gland of the mother after feeding. The child was diagnosed with dystrophy according to the type of malnutrition of the 1st degree.

**Questions:**

1. Identify the patient's problems; Set goals and plan nursing care for the priority issue, with the motivation behind each nursing intervention. Explain to parents the importance of following a diet.

2. Explain to the mother the need for proper nutrition and educate her about the introduction of supplementary feeding.
3. Demonstrate the technique of checkweighing.

**№ 2.** Baby 3 months old The mother complains about the child's anxiety between feedings, poor appetite. Child from III pregnancy, 2 births. Birth weight 3200, length 50 cm. Breastfed. Feeding regime is not observed. Mom thinks she doesn't have enough milk. The child had an intestinal infection at 1 month. Weight gain amounted to: for the 1st month. 300 g, 2nd month 400 g. Body length is currently 56 cm.
The child is lethargic, inactive, the skin is pale, dry, it gathers in folds on the hips. Subcutaneous tissue on the abdomen and thighs, on the shoulder girdle is thinned, preserved on the face, tissue turgor is reduced. Muscle tone is reduced, the mucous membranes are dry, the large fontanel is slightly sunken. Heart sounds are muffled. Stool scanty (1-2 times a day), without pathology.
Diagnosis: dystrophy according to the type of malnutrition of the 2nd degree.
**Questions:**
1. Identify the patient's problems; Set goals and plan nursing care for the priority issue, with the motivation behind each nursing intervention. Explain to the mother the importance of observing regimen moments.
2. Teach the mother additional ways to keep the baby warm.
3. Demonstrate warming up the baby using heating pads.

**№ 3.** Child 6 months enters inpatient treatment in the children's department with a diagnosis of iron deficiency anemia, moderate form; dystrophy according to the type of malnutrition I-st.
Complaints of restless sleep, stool with a tendency to constipation, lack of body weight, pale skin and mucous membranes.
The child was born with a weight of 3200 g. From 1 month. a child fed with unadapted mixtures receives complementary foods in the form of porridge 2-3 times a day. Juices and fruit puree are eaten irregularly.
The child is lethargic, capricious. Skin and mucous membranes are pale. For feeding eats 100 ml of food. Has a body weight deficit of 16%, NPV 46 beats. per minute, pulse 140 beats. in minutes. The subcutaneous fat layer is thinned on the abdomen, chest, limbs.
In the study of blood: WBC- 3.2 x 10 12/l, Hb = 84 g/l, c.p. - 0.65.
**Questions:**
1. Identify the patient's problems; Set goals and plan nursing care for the priority issue, with the motivation behind each nursing intervention.
2. Teach mom how to administer iron supplements.
3. Demonstrate the technique of checkweighing.

**1.Theme № 13:** Jaundice of newborns.
**2. Learning goals:**
- consolidation and expansion of knowledge, skills acquired by students during practical classes;

- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**3.Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**
- substantiate and clearly state the educational material;

- to use theoretical knowledge in the performance of practical tasks;

- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 17 class

**7. Bibliography:**

48. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
49. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
50. Clinical protocol for the treatment and diagnosis of Jaundice of newborns, dated October 6, 2022 No.171.

**8. Control:**

**Test questions**

1. Unconjugated bilirubin is a complex of bilirubin with:
a) fatty acids
b) glucose
c) albumin
d) transferrin
d) all of the above

2. Conjugated bilirubin is a complex of bilirubin with:
a) amino acids
b) glucuronic acid
c) glucose
d) vitamins
e) salts of fatty acids
3. Physiological jaundice of a newborn develops as a result of:
a) increased formation of indirect bilirubin due to the shortened life span of erythrocytes with fetal hemoglobin
b) hypoalbuminemia
c) decrease in the activity of glucuronyl transferase
d) increasing the formation of indirect bilirubin due to a shortened
life expectancy of erythrocytes with fetal hemoglobin and
hypoalbuminemia e) increased formation of indirect bilirubin due to shortened lifespan of erythrocytes with fetal hemoglobin, hypoalbuminemia and decreased activity of glucuronyl transferase
4. In primary hypothyroidism, the level of TSH in the blood:
a) elevated
b) not changed
c) lowered
d) sharply reduced
e) TSH level has no diagnostic value
5. Jaundice in Gilbert's syndrome is reduced by using:
a) phenobarbital
b) antisecretory drugs
c) prokinetics
d) Essentiale Forte
e) sulfonamides
6. In case of hypothyroidism in newborns, the processes of bilirubin conjugation:
a) slow down
b) do not change
c) are accelerating

7. The cause of hemolytic disease of the newborn is:
a) immaturity of liver glucuronyltransferase
b) isoimmune hemolytic anemia
c) hemoglobinopathy
d) intrauterine infection
e) autoimmune hemolytic anemia
8. With incompatibility of the blood of the mother and fetus according to the Rh factor, hemolytic disease of the newborn often develops:
a) during the first pregnancy

b) with repeated pregnancies

9. A more severe course of hemolytic disease of the newborn is noted with incompatibility of the blood of the mother and fetus according to:

a) Rh factor

b) blood group

10. Hemolytic disease of the newborn during the 1st pregnancy is more often caused by incompatibility of the blood of the mother and fetus:

a) according to the ABO system

b) according to the Rh factor

11. Jaundice in hemolytic disease of the newborn appears:

a) up to 48 hours of life

b) after 48 hours of life

c) after 7 days of life

d) after 10 days of life

12. Recovery as an outcome of fetal hepatitis:

a) maybe

b) impossible

13. Formation of biliary atresia as a result of fetal hepatitis:

a) maybe

b) impossible

14. Manifestations of hemolytic disease of the newborn include:

a) hepatosplenomegaly

b) hemorrhagic syndrome

c) thrombocytopenia

d) anemia

e) dyspeptic syndrome

15. In the treatment of hemolytic disease of the newborn, the following are used:

a) hormone therapy

b) intravenous administration of standard immunoglobulin

c) phototherapy

d) antibiotic therapy

e) exchange transfusion

16. Hyperbilirubinemia with an increase in the level of direct bilirubin is observed with:

a) hemolytic disease of the newborn

b) deficiency of α-1-antitrypsin

c) conjugative jaundice due to morpho-functional immaturity

d) atresia of the bile ducts

e) fetal hepatitis

**Situational tasks**

**№ 1.** Girl O., 4 days old, is in the maternity hospital.

From the anamnesis it is known that the child is from the first pregnancy, which proceeded with toxicosis in the 1st half. Delivery is urgent. Body weight at birth 3100 g, body length 51 cm Apgar score 8/9 points. She screamed immediately, was attached to the breast two hours after birth, sucked well. On the 3rd day, icterus of the skin appeared.

On examination on the 4th day of life, the condition is satisfactory, sucks well, the cry is loud. The skin is clean, moderately icteric, the umbilical wound is clean. In the lungs, breathing is puerile, heart tones are sonorous, the abdomen is soft, the liver protrudes from under the edge of the costal arch by 1 cm, the spleen is not palpable. Yellow chair. Physiological reflexes are evoked, muscle tone is satisfactory.

The mother's blood type is A(P) Rh-positive.

The child's blood type is 0(1) Rh-positive.

Complete blood count: Hb - 196 g/l, Er - 5.9x1012/l, reticulocytes -1.5%, C.p. - 0.94, Lake - 9.0x109 / l, p / i - 5%, s - 42%, e - 1%, l - 47%, m -5%, ESR - 2 mm / h.

General urine analysis: color - straw yellow, reaction - acidic, specific gravity - 1004, no protein, squamous epithelium - a little, leukocytes - 2-3 p / o, erythrocytes - no, cylinders - no.

Biochemical blood test on the 4th day of life: total protein -52.4 g/l, bilirubin: indirect - 140 μmol/l, direct - no, urea -4.2 mmol/l, cholesterol - 3.6 mmol/l , potassium - 5.1 mmol/l, sodium -141 mmol/l, ALT - 25 mmol/l, ACT -18 mmol/l.

Questions:

1. Make a diagnosis.
2. How do you assess the weight-height index at birth?
3. Evaluate the results of the complete blood count.
4. Evaluate the results of the general analysis of urine.
5. Evaluate the results of a biochemical blood test. What are the identified changes related to?
6. Tell us about the features of bilirubin metabolism in a newborn.
7. Is it possible to develop hemolytic disease of the newborn in this case?
8. What is the genesis of jaundice in this case?
9. Make a differential diagnosis of conjugative and hemolytic jaundice in a newborn.
10. What clinical syndromes of a newborn with jaundice should be shown to a neurologist?
11. At what level of indirect bilirubin should a newborn with jaundice need an exchange transfusion?
12. Does this child require treatment for jaundice?
13. How to feed this baby?
14. What is the prognosis for this child?

**1.Theme № 14:** Allergic dermatitis.

**2. Learning goals:**

- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;

- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**3.Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**
- substantiate and clearly state the educational material;

- to use theoretical knowledge in the performance of practical tasks;

- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 18 class

**7. Bibliography:**

51. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
52. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
53. Clinical protocol for the treatment and diagnosis of Allergic dermatitis in children, dated November 30, 2015 No.18.

**8. Control:**

**Test questions**

1. The pathogenesis of what diseases is based on anaphylactic reactions?
1) hay fever
2) urticaria
3) chronic nonspecific lung diseases
4) thymus hyperplasia
5) diabetes
2. Mechanisms of immediate type hypersensitivity underlie:
1) bronchial asthma
2) autoimmune hemolytic anemia
3) contact dermatitis
4) exogenous allergic alveolitis

5) Mantoux reactions
3. The mechanisms of delayed-type hypersensitivity underlie:
1) serum sickness
2) hemolytic disease of the newborn
3) contact dermatitis
4) tuberculin reaction
5) angioedema
4. What drugs belong to the basic anti-inflammatory therapy for asthma:
1) inhaled corticosteroids
2) leukotriene receptor antagonists
3) prolonged -agonists
4) calcium antagonists
5. What provocative allergy tests are appropriate for allergic contact dermatitis?
1) inhalation
2) intranasal
3) conjunctival
4) applique
5) intradermal
6. Manifestations of atopic dermatitis are more often provoked by:
1) cold weather
2) hot water
3) combing
4) food allergens
5) infections
7. Characteristic features for sensitization to household allergens are:
1) moderate eosinophilia
2) allergic manifestations appear, as a rule, in the spring
3) allergic manifestations can disappear when you change your place of residence
4) allergic manifestations can occur after cleaning the apartment
5) combination with food allergy
8. Characteristic signs for allergization by pollen allergens are:
1) high eosinophilia
2) seasonality with frequent exacerbations in spring and summer
3) Allergy most often manifests itself in the form of rhinoconjunctival syndrome
4) Allergy most often manifests itself in the form of dermatitis
5) exacerbations are provoked by hyperventilation
9. Allergic rhinitis is more often caused by sensitization:
1) plant pollen
2) salts of heavy metals
3) antigens of bacterial capsules
4) household dust
5) food allergens
10. Indications for the appointment of local glucocorticoids in allergic rhinitis:
1) easy flow
2) moderate course
3) severe course
4) lack of seasonality
11. Features of topical glucocorticoids in allergic rhinitis:

1) the maximum effect develops in 2-3 days
2) the maximum effect develops in 2-3 weeks
3) after achieving a positive effect, the drug should be gradually discontinued
4) after achieving a positive effect, the dose of the drug should be gradually reduced by 2-3 times
5) in severe continuous course, the drug can be given up to 2 years

12. When using H1 histamine receptor blockers in allergic rhinitis, you should remember:
1) it is better to apply in the early stages of the disease
2) if there is no effect, increase the dose and lengthen the course
3) during the period of remission, these drugs should be taken periodically to prevent exacerbations
4) with a protracted course, it is better to take it orally, and not locally

13. When using mast cell membrane stabilizers in allergic rhinitis, remember:
1) the optimal course is 2-4 weeks
2) the duration of application should be more than 2 months
3) with a seasonal course, the course begins 4 weeks before the probable exacerbation
4) the maximum effect develops in 2-3 days
5) cannot be combined with glucocorticoids

14. Indications for SIT in allergic rhinitis:
1) all year round
2) seasonal course in the presence of polyvalent sensitization
3) coincidence of allergic tests and clinical data
4) the duration of the disease is not more than 6 years
5) absence of concomitant contact dermatitis or bronchial asthma

15. When using intranasal adrenomimetics for allergic rhinitis, you should remember:
1) the optimal course is 2-4 weeks
2) with a protracted course, it should be given until the symptoms of the disease disappear
3) Do not give these drugs for more than 3-5 days in a row
4) in the absence of effect, the dose should be gradually increased
5) are indicated for the prevention of exacerbations during remission

16. Specific hyposensitization is indicated:
1) with an allergy to cereal pollen
2) for the prevention of local reactions to bee stings
3) if you are allergic to tree pollen
4) for the prevention of anaphylaxis on a wasp sting
5) when allergized by antigens of household ticks

17. Which of the following is a direct indication for the prescription of glucocorticoids?
1) severe asthma attack
2) atopic dermatitis, localized form
3) Steven-Johnson syndrome
4) anaphylactic shock
5) pulmonary eosinophilic infiltrate

18. Risk factors for potentially fatal asthma include: 1) the presence of a pronounced allergic component
2) attacks are provoked by physical activity
3) hormonal dependence
4) asthmatic status in history
5) asthma is combined with severe allergic dermatosis

19. Children are at greater risk of developing allergic diseases:
1) transferred to artificial feeding in the first months of life

2) who suffered rickets in the first year of life
3) with lymphatic-hypoplastic diathesis
4) with a history of exudative-catarrhal diathesis
5) from incomplete families
20. The most common causes of food allergies from the list below are:
1) rabbit meat
2) fish
3) milk
4) peanuts
5) potatoes

**Situational tasks**

A 10-year-old patient suffering from allergic asthma (household sensitization) with achieved control of asthma symptoms against the background of low doses of corticosteroids (pulmicort 100 mcg/day). Attends a comprehensive school where seasonal influenza vaccination (flu) is planned.

**Questions:**

1. Is vaccination indicated for this patient?
2. What data of the anamnesis are important for the introduction of this vaccine?
3. Conditions for vaccination of children with allergic pathology?

**1.Theme № 15:** Obstructive syndrome in children.

**2. Learning goals:**

- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**3.Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**

- substantiate and clearly state the educational material;
- to use theoretical knowledge in the performance of practical tasks;
- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 20 class

**7. Bibliography:**

54. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
55. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
56. Clinical protocol for the treatment and diagnosis of obstructive bronchitis in children, dated October 5, 2017 No.29.
57. Clinical protocol for the treatment and diagnosis of COVID-19, dated July 25, 2022 No.166.
58. https://media.skma.edu.kz/ Diagnosis of Pneumonia.
59. https://media.skma.edu.kz/ Treatment of pneumonia.

**8. Control:**

**Test questions**

1. For the treatment of obstructive bronchitis during an exacerbation shown:
A. expectorants
B. mucolytics
C. antibacterial drugs
D. hepatoprotectors
2. All of the following are characteristic of bronchial asthma symptoms, except:
A. an attack of bronchospasm with expiratory dyspnea
B. increased chlorides in sweat and urine
C. hyperproduction of viscous transparent sputum
D. scattered intermittent dry and moist rales
3. Specify the most life-threatening complication of pneumonia:
A. lung abscess
B. exudative pleurisy
C. -myocarditis
D. pericarditis
E. toxic shock
4. What antibiotic should be prescribed for pneumonia caused by mycoplasma:
A. tetracycline
B. macrolide
C. penicillin
D. cephalosporin
E. aminoglycoside
5. Respiratory rate in a small child requires re-counting in the delivery room if it is at birth:
A. 45 per minute

B. 50 per minute
C. 60 per minute
D. 65 per minute
E. 40 per minute
6. Patient, 8 years old. Body temperature suddenly increased to 40 C. Headaches, delirium, cough with “rusty sputum”, chest pains appeared. The doctor should first of all think about:
A. interstitial pneumonia
B. lobar pneumonia
C. acute bronchitis
D. acute bronchiolitis
E. bronchiolitis obliterans
7. Sergey, 1 year old, has been in a fever for 5 days. The patient's condition is grave, temperature 38.5 C, wet cough, cyanosis of the nasolabial triangle, swelling of the wings of the nose, circles under the eyes. In the lungs, there is a local shortening of the pulmonary sound on the right below the angle of the scapula, in the same place against the background of weakened breathing, moist small bubbling rales.
In the KLA - leukocytosis, accelerated ESR. On R-graphy of the chest in the lower parts of the focal changes, the root of the lungs is thickened. Your diagnosis:
A. acute pneumonia
B. acute bronchitis with obstructive syndrome
C. acute bronchiolitis
D. acute bronchitis
E. pleurisy
8. Girl 6 years old. Complaints of paroxysmal cough, noisy breathing. The attack of suffocation arose after eating chocolate. On examination, a state of moderate severity, breathing is audible at a distance, percussion sound with a box shade above the lungs, a lot of dry rales over the entire surface of the lungs, the tones are muffled. Chest X-ray - increased bronchopulmonary pattern in the root zones, increased transparency, no focal shadows. Which of the following should be prescribed to relieve an attack:
A. adrenaline
B. salbutamol
C. calcium glucanate
D. eufillin
E. glucose
9. The child is 6 years old. Acute attack of bronchial asthma, lasting 1.5 hours, accompanied by severe cough, rhinitis, difficulty breathing. Parents gave the child a tablet of bromhexine and aminophylline. Then they went to the polyclinic at the place of residence. Which of the methods of treatment is the most appropriate to carry out:
A. gastric lavage by probe method
B. a set of breathing exercises
C. ultraviolet irradiation
D. inhalation with a nebulizer b2-agonists
E. nebulizer inhalation with b-adrenergic agonists
10. In what case does the treatment of an asthma attack in children begin with the administration of aminophylline:
A. hormone-dependent forms
B. the duration of the attack is more than 6 hours
C. the presence of areas of "silent lung"

D. overdose of adrenomimetics
E. in all cases listed
11. In the etiology of pneumonia in the first half of life, less
flora matters
A. staphylococcus aureus
B. pneumococcus
C. klebsiella
D. Pseudomonas aeruginosa
12. In the etiology of pneumonia in rarely ill children after a year
is of paramount importance
A. pneumococcus
B. streptococcus
C. staphylococcus aureus
D. klebsiella
13. Leading clinical syndrome in the diagnosis of pneumonia is:
A. shortness of breath
B. weakened breathing
C. localized crepitus
D. numerous fine bubbling rales
14. Hyperthermia with chills in the first hours of the disease is typical:
A. for staphylococcal pneumonia
B. for mycoplasma pneumonia
C. for pneumocystis pneumonia
D. for pneumococcal pneumonia
15. What pneumonia can be classified as typical for immunodeficiency state:
A. pneumococcal
B. staphylococcal
C. mycoplasma
D. pneumocystis
16. Pneumothorax without the development of pleurisy is typical:
A. for staphylococcal pneumonia
B. for pneumococcal pneumonia
C. for pneumocystis pneumonia
D. for mycoplasma pneumonia
17. Thickening of the skin fold over the affected area typically:
A. for focal pneumonia
B. for atelectasis
C. for pneumothorax
D. for purulent pleurisy
18. If you suspect the development of pleurisy in a child, you should hospitalize:
A. to the infectious disease department for acute respiratory infections
B. infections
C. to the surgical hospital
D. to the intensive care unit
E. to a multi-speciality hospital with facilities
round-the-clock examination and observation
19. Hyperleukocytosis with a sharp neutrophilic and youthful shift typical:
A. for mycoplasma pneumonia

B. for pneumocystis pneumonia
C. for Pseudomonas aeruginosa
D. for staphylococcal pneumonia
20. Lack of adequate shortness of breath in the first hours of the disease typically:
A. for focal pneumonia
B. for segmental pneumonia
C. for focal confluent pneumonia
D. for interstitial pneumonia

**Situational tasks**

**№ 1.** A 7-year-old child complains of periodic attacks of expiratory suffocation with coughing and a feeling of wheezing and whistling in the chest. From the anamnesis: such attacks were noted during the last year 2-3 times. Attacks occur more often on various smells and disappear spontaneously with the disappearance of all symptoms. Not treated. Within six months, there is a clinic of vasomotor rhinitis. According to the mother, the first 2 years of life the child was observed for atopic dermatitis. The mother has bronchial asthma. Objective and X-ray examination revealed no pathology. In the blood test, 8% of eosinophils. According to spirography FEV1 -85%.
**Assignment to the situational task:**
1. Make a diagnosis.
2. Make a list of diseases for differential diagnosis.
3. Schedule an examination.

**1.Theme № 21:** Organization of rational feeding of young children.
**2. Learning goals:**
- consolidation and expansion of knowledge, skills acquired by students during practical classes;
- development of orientation and installation on the qualitative development of the educational program;
- development of self-organization skills;
- formation of independence of thinking, ability to self-development, self-improvement and self-realization;
- development of skills for effective independent professional theoretical, practical and educational and research activities.

**3.Assignments:** Clinical work in the GP department

**4. Forms of task completion/assessment:** Work with clinical protocols

**5. Criteria of task completion:**
- substantiate and clearly state the educational material;

- to use theoretical knowledge in the performance of practical tasks;

- navigate the flow of information and highlight the main thing;

- clearly formulate the problem, critically evaluate its solution;

- to formulate own position and argue it.

**6. The deadline for task completion:** the 21 class

**7. Bibliography:**

60. ON PUBLIC HEALTH AND HEALTHCARE SYSTEM Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI RK.
61. Regulations on the activities of healthcare organizations providing outpatient care. Order of the Ministry of Health of the Republic of Kazakhstan dated January 5, 2011 No. 7.
62. Clinical protocol for the treatment and diagnosis of Functional dyspepsia in children, dated July 4, 2017 No.10.

**8. Control:**

**Test questions**

1. At what age does functional dyspepsia appear in children?
A) from 1 year
B) from 2 years old
B) from 3 years old
D) since birth
D) from 4 years old
2. Type of dyspepsia depending on the clinical manifestation?
A) dyskinetic
B) Specific
B) wedge-shaped
D) epigastric
D) pain
3. Unfavorable outcome of simple dyspepsia?
A) toxic dyspepsia
B) Hepatitis
B) Esophagitis
D) Colitis
D) Orchitis
4. What forms of dyspepsia in children should be treated in a hospital setting?
A) medium-heavy and heavy
B) heavy
B) medium-heavy
D) simple
D) all answers are correct
5. Is it prescribed to remove toxins in dyspepsia in children?
A) sorbents
B) antispasmodics
B) enzymes
D) antibacterial drugs
D) Anti-inflammatory drugs
6. Is it prescribed to improve gastric motility?

A) prokinetics
B) sorbents
B) antispasmodics
D) enzymes
D) antibacterial drugs
7. Is it prescribed to relieve pain in dyspepsia?
A) antispasmodics
B) sorbents
B) prokinetics
D) enzymes
D) antibacterial drugs
8. CHILDREN WITH CHRONIC DISEASES IN THE STATE OF DECOMPENSATION, WITH A SIGNIFICANTLY REDUCED FUNCTIONAL CAPABILITIES OF THE BODY, BELONG TO THE HEALTH GROUP
A) 5
B) 4
IN 2
D) 3
9. THE MOST PHYSIOLOGICAL METHOD FOR DETERMINING GASTRIC ACIDITY IS
A) pH-metry
B) acidotest
B) fractional method
D) thick probe method according to Boas-Ewald
10. WHEN BLEEDING FROM THE VEINS OF THE ESOPHAGUS IS SUSPECTED, IT IS FIRST TO CARRY OUT
A) esophagoscopy
B) abdominal ultrasound
C) radiopaque examination of the esophagus with barium
D) Ultrasound of the esophagus
11. HELICOBACTER PYLORI RELATED TO
A) Gram-negative bacteria
B) viruses
B) Gram-positive bacteria
D) the simplest
12. HELICOBACTER PYLORI PRESIDENTLY PARASITES IN
A) antrum of the stomach
B) the body of the stomach
B) duodenal bulb
D) in the fundus of the stomach
13. IN THE DIAGNOSIS OF CELIAC DIAGNOSE
A) esophagogastroduodenoscopy with biopsy of the small intestine
B) scatological examination
C) determination of antibodies to tissue transglutaminase in blood serum
D) abdominal ultrasound
14. CHALASIA CARDIA IS CHARACTERISTIC OF THE PRESENCE
A) recurrent vomiting
B) pain on an empty stomach in the right hypochondrium
C) fasting pain in the epigastrium

D) constipation
15. RELIABLE RADIOLOGICAL SIGN OF DUODENAL ULCER IS
A) residual spot of barium
B) convergence of folds
B) swelling of the folds
D) irritated bulb 1
16. THE MOST PHYSIOLOGICAL METHOD FOR DETERMINING GASTRIC ACIDITY IS
A) pH-metry
B) acidotest
B) fractional method
D) thick probe method according to Boas-Ewald
17. WHEN BLEEDING FROM THE VEINS OF THE ESOPHAGUS IS SUSPECTED, THE FIRST PERFORMANCE
A) esophagoscopy
B) abdominal ultrasound
C) radiopaque examination of the esophagus with barium
D) Ultrasound of the esophagus
18. HELICOBACTER PYLORI RELATED TO
A) Gram-negative bacteria
B) viruses
B) Gram-positive bacteria
D) the simplest
19. HELICOBACTER PYLORI PRESIDENTLY PARASITES IN
A) antrum of the stomach
B) the body of the stomach
B) duodenal bulb
D) in the fundus of the stomach
20. Are the main (mandatory) diagnostic examinations carried out at the outpatient level?
A) GBA, GUA, on-invasive diagnostics of H. pylori, ultrasound of the abdominal organs
B) GBA, GUA, FEGDS, ECG
C) GBA, GUA, FEGDS, ECG, CT, ultrasound of the abdominal organs
D) FEGDS, ECG, CT
D) Examination of perianal scraping.

**Situational task**

A 13-year-old girl had abdominal pain, fever, and vomiting for 3 days. During the examination, the child is pale, lethargic, complains of pain in the abdomen. Body temperature 37.9 °C. Pulse 92 per minute, respiratory rate 25 per minute. The abdomen is not deflated; on palpation in the right iliac region, a painful immobile formation measuring 6x6 cm is determined. Shchetkin-Blumberg's symptom is positive. Leukocytosis 16.2x109/L.

**Assignment to the situational task:**

1. Make a diagnosis.
2. Make a list of diseases for differential diagnosis.
3. Schedule an examination.