THE MINISTRY OF HEALTH PROTECTION OF UKRAINE

ODESSA NATIONAL MEDICAL UNIVERSITY

Department of infectious diseases with a course of dermatovenereology

APPROVED
vice-rector for scientific and pedagogical work.
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METHODOLOGICAL RECOMMENDATIONS

FOR PRACTICAL CLASSES

IN THE ACADEMIC DISCIPLINE

ACADEMIC DISCIPLINE

Children`s infectious diseases
6 year

Level of higher education: second (master's)

Field of knowledge: 22 "Health care"

Specialty: 222 "Medicine"

Educational and professional program: Medicine

Approved:

Meeting of the department of infectious diseases with a course of dermatovenereology

Odessa National Medical University

Protocol No. 1 of 08/29/2025

Head of the department of infectious diseases with a course of dermatovenereology

_____ Tetyana CHABAN

Teacher(s)

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Practical lesson No. 1, No. 2

Topic 1. Differential diagnosis of infections with exanthema syndrome in children: measles, rubella, chicken pox, herpes zoster, herpes simplex, allergic exanthemas.
Topic 2. Differential diagnosis of infections with exanthema syndrome in children: scarlet fever, pseudotuberculosis.

Goal:
-Assessment (determination) of the level of formation of such components of special competences, such as the ability to interview and clinically examine a child, determine the necessary list of laboratory and instrumental studies, evaluate their results, establish a preliminary and clinical diagnosis, decide tactics and provide emergency medical care, determine principles and nature of treatment. Demonstration of medical manipulations used in children's infectious diseases.
-Learn clinical variants of the course of diseases with exanthema syndrome; learn methods of laboratory diagnostics; understand the principles of prevention and treatment of measles, rubella, chicken pox, herpes zoster, herpes simplex, scarlet fever, and pseudotuberculosis.
- Master the skills of differential diagnosis of diseases with exanthema syndrome (measles, rubella, chicken pox, herpes zoster, herpes simplex, scarlet fever, pseudotuberculosis); skills to clinically investigate the atypical course of diseases with exanthema syndrome.

Basic concepts:
- exanthema, enanthema, types of rashes
- disease periods and clinical symptoms of diseases
- pathognomonic symptoms in infectious diseases accompanied by exanthema
- the dynamics of the rash in various diseases (the time of the appearance of the rash from the onset of the disease, the sequence of the distribution of the elements of the rash on the surface of the body, its localization, the number of elements, their size, shape, color, order of disappearance)

Equipment:
-compendium
- photos of various types of exanthema
- photos of exanthema and enanthema in various diseases
-clinical situational typical and atypical tasks
- test tasks on the topic

Plan:

1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary).
- requirements for students' theoretical readiness to perform practical classes (knowledge requirements, list of didactic units).
- questions (test tasks, problems, clinical situations) to check basic knowledge of the lesson's subject.

Question:
1. What is exanthema?
2. What are the anatomical and physiological features of the skin in children?
3. What are the principles of serological and virological diagnostics?
4. Know how to survey a patient with exanthema.
5. Features of local immunity in children of different ages.
6. Features of causative agents of measles and rubella, chicken pox, scarlet fever, pseudotuberculosis.
7. Epidemiology of measles, rubella, chicken pox, herpes zoster, scarlet fever, pseudotuberculosis (source of infection, ways of transmission, susceptibility).
8. Peculiarities of pathogenesis.
9. The disease's main periods, characteristics, and duration. Clinical symptoms of diseases in different periods of the disease.
10. Differential diagnosis of rash with measles and rubella, chicken pox, herpes zoster, herpes simplex, scarlet fever, and pseudotuberculosis.
11. Results of laboratory studies.
12. Classification of the disease by type, severity, and course.
13. Peculiarities of the course in young children.
14. Rubella in pregnant women.

15. Complications of measles and rubella, chicken pox and herpes zoster, early and late complications of scarlet fever, and pseudotuberculosis.
16. Treatment and prevention of measles and rubella, chicken pox and herpes zoster, scarlet fever, and pseudotuberculosis.
17. Term and conditions of isolation of patients with measles, rubella, chicken pox and herpes zoster, scarlet fever, and pseudotuberculosis.

3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.):
- content of tasks (tasks, clinical situations, etc.);

Tasks:
1. A 2-year-old child was hospitalized with a diagnosis of SARS. Sick for 3 days. High temperature, catarrhal phenomena from the upper respiratory tract, dry cough, lacrimation, and photophobia. During the examination - hyperemia of the mucous membrane of the oral cavity, an enanthema on the soft palate, Belsky-Filatov spots on the mucous membrane of the cheeks, and a small spotted-papular exanthema appeared behind the ears.
1. What is the diagnosis?
2. What is the period of illness?
3. How many days will the child be considered contagious?
4. Where should the child be hospitalized?

2. The child is 7 years old and got sick 4 days ago. All days, body temperature is 37.5-38˚C, dry cough. A rash appeared today. The parents called the district doctor. Objectively, the temperature is 37.8C. Frequent dry cough. Conjunctivitis, photophobia. The throat is highly hyperemic, and on the mucous membrane of the cheek against the large molars, there is hyperemia and pointy white plaques that cannot be removed with a spatula. The face is puffy, the eyelids are swollen, and there is a spotted papular rash on the face and behind the ears against an unchanged skin background. Separate elements of the rash are visible on the upper part of the body. Hard breathing is heard above the lungs, and there is no wheezing. There is no other pathology.
1. Make a detailed clinical diagnosis.
2. Carry out diff. diagnosis
3. Make a plan for laboratory examination
4. Treatment plan for this patient
5. What methods of disease prevention do you know

3. For 4 days, the child had a dry, frequent cough with an increased body temperature of 37.5-38C. The temperature rose to 38.3C today, and the district doctor was called. Objectively: voice hoarse, frequent dry cough. A small-spotted and papular rash on the face and behind the ears, prone to coalescence. Conjunctivitis, blepharitis, photophobia. The throat is hyperemic, and the tonsils are loose. On the mucous membrane of the cheeks against the large molars, several pointy white spots cannot be removed with a spatula. Hard breathing is heard above the lungs, and there is no wheezing without any other pathology.
1. Make a detailed clinical diagnosis.
2. Carry out a differential diagnosis.
3. What laboratory tests should be prescribed for diagnosis?
4. Assign treatment to the patient.
5. What complications can occur with this infection

4. A 4-year-old child came in with complaints of an increase in body temperature to 39.2˚C, paroxysmal abdominal pain, the appearance of vomiting, and liquid profuse stools 3 times with mucus admixtures. I got sick yesterday, the day before I ate a salad of fresh vegetables. During examination the condition is moderate, lethargic, complains of muscle pain, temperature 38.8C. The face is hyperemic and swollen. Swollen fingers, feet, hyperemia of the conjunctiva, and back wall of the pharynx. On the skin of the chest, abdomen, armpits, and inguinal region, there is a profuse rash with tiny spots. In the lungs, vesicular breathing, tachycardia, and muffled heart sounds. Palpation of the abdomen is painful in the epigastric, ileocecal region, the liver + 0.5 cm below the edge of the costal arch. He urinates enough, and the stool is liquid 3 times. The general blood analysis showed leukocytosis, neutrophilia with rod-nuclear shift, accelerated ESR, and eosinophilia.
1. Make a preliminary diagnosis
2. Make a plan for examining the child
3. What diseases should be differentially diagnosed?
4. Prescribe treatment

5. Carry out anti-epidemic measures in the cell

- recommendations (instructions) for performing tasks (professional algorithms, orienting maps for the formation of practical skills and abilities, etc.);

№	Main tasks	Instructions	Answers
1	Characteristics of causative agents of measles, rubella, herpesvirus infections, scarlet fever, pseudotuberculosis. Epidemiology of infection	Characteristics of the pathogen, its properties, and stability in the environment. Peculiarities of epidemiology, source of infection, susceptibility, and ways of spreading.	
2	Pathogenesis and clinical variants of the course of infection	Entry gate, distribution in the body, tropism. Classification of clinical forms of diseases. Clinical symptoms of typical and atypical forms. Complications, pathogenesis of development, clinical symptoms.	
3	Laboratory data	Hematological data, urine and blood tests, analysis of cerebrospinal fluid, serological diagnosis, ultrasound	
4	Differential diagnosis	Differential diagnosis with other diseases that are accompanied by exanthema syndrome	
5	Treatment	Diet, regime, pathogenetic, symptomatic, etiotropic therapy. Indications for hospitalization. Conditions for organizing a hospital stay at home. Treatment of uncomplicated and complicated measles, rubella, scarlet fever, and pseudotuberculosis variants.	
6	Prevention	Carrying out anti-epidemic measures with a focus of infection. Term of isolation of patients, conditions of isolation.	

An indicative map of the patient's examination

Task	Instructions	Answers
1 Anamnesis	When he got sick, date. Complaints, onset of illness. History of life. Symptoms of the prodromal period. When has the rash appeared? The duration of the prodromal period	
2 Epidanamnesis	Contact with the patient at school, kindergarten, and home. Was gammaglobulin administered? Vaccination against measles and rubella.	
3. Examination of the patient.	The severity of the condition. Characteristics of the rash: 1. The time of appearance of the rash from the onset of the disease. 2. The distribution sequence of rash elements on the body's surface.	

	3. Localization. 4. Number of elements (size, shape, color). 5. Order of disappearance. 6. Degree of catarrhal phenomena. State of respiratory organs and cardiovascular system. Characteristics of lymph nodes. Palpation of the abdomen, liver, and spleen (size). Diuresis and defecation. The presence of meningeal signs.	
4 Laboratory and instrumental data	1. Hematological data. 2. Serological diagnostics (RPGA, RSK, RTGA, IFA). PCR diagnosis. 3. Bacteriological studies. 4. ECG, X-ray and other	
5Differential diagnosis	Conduct a differential diagnosis between diseases with exanthems. Pay attention to the stages of the disease. Formulate a clinical diagnosis according to the classification.	
6 Treatment	Assign individual treatment to the patient (taking into account the presence of complications)	
7 Prevention	Draw up a plan of anti-epidemic measures (related to the patient and contacts)	

- Requirements for work results, including before registration: In case of independent preparation for the practical lesson, fill out the guide card for the practical lesson.

Applicants must observe academic integrity, namely:
• independent performance of all types of work, tasks, and forms of control provided for by the work program of this educational discipline;
• references to sources of information in the case of using ideas, developments, statements, information;
• compliance with the legislation on copyright and related rights;
• provision of reliable information about the results of one's own educational (scientific) activity using research methods and sources of information.

- Control materials for the final stage of the lesson: tasks, tests, etc. (if necessary).

Tests:
1. A 7-year-old child fell ill suddenly: body temperature rose, headache, sore throat when swallowing, and vomited twice. After 3 hours, a slight red rash on a hyperemic background appeared in the inguinal and inguinal areas. The mucous membrane of the oropharynx is hyperemic, with gray plaques on the tonsils enlarged and painful submandibular lymph nodes.
Your diagnosis?
A. Cyrus
B. Diphtheria
C. Infectious mononucleosis
D. Enterovirus infection
E. Scarlet fever

2. A 12-year-old child suffered scarlet fever 2.5 weeks ago. Today, body temperature increased, and back pain, hematuria, and proteinuria appeared in the urine. Glomerulonephritis is suspected.
The reason for the probable complication?
A. Toxic factor
B. Bacterial (streptococcus)

C. Immune
D. Joining another infection
E. Toxic and infectious

3. A 14-year-old patient was hospitalized on the 5th day of illness with complaints of icterus of the skin and mucous membranes, scarlet fever, and positive symptoms of "gloves", "socks", "hood", and frequent loose stools. What disease can you think of?
A. Viral hepatitis A
B. Infectious mononucleosis
C. Leptospirosis
D. Tularemia
E. Pseudotuberculosis

4. A woman turned to a women's consultation concerning contact with rubella. The woman is 3 months pregnant. In what period of pregnancy is the rubella virus the most dangerous for the fetus?
A. In the first trimester
B. In the II trimester
C. In the III trimester
D. At any time of pregnancy
E. The virus does not affect the fetus

5. There is a case of rubella in the orphanage. The child was hospitalized at an infectious disease hospital, and symptomatic therapy was prescribed. The child's condition is satisfactory; body temperature is average, and there is no rash. When can a child be discharged?
A. After 5 days from the onset of the disease
B. After normalization of t° of the body
C. 21 days after the onset of the disease
D. The day after the rash disappears
E. After 5 days from the onset of the rash

6. A 4-year-old child was admitted to the hospital on the 3rd day of illness with a diagnosis of chicken pox, mild course, without complications. The following should be used in treatment:
A. Bed mode
B. Treatment of rash elements with solutions of aniline dyes
C. Antibacterial therapy
D. Multivitamins
E. Strict hygienic regime

7. In a 3-year-old child who was in contact with a sick shingles
herpes, on the 11th day, the body temperature rose to 37.5˚C, the child was lethargic, and the appetite decreased. A few hours later, a maculopapular rash appeared on the body's and limbs' skin. The district doctor diagnosed chickenpox.
What is the form of chicken pox in a child?
A. Typical form, easy course
B. A rudimentary form
C. Pustular form
D. Abortive form
E. Bullous form

8. A 5-year-old child was admitted with complaints of large-plate skin peeling on the palms. A week ago, the child had an increase in body temperature, a sore throat, and one-time vomiting. They did not consult a doctor. For 3 days, the child received ampicillin, diphenhydramine, and panadol. During the child's examination, the doctor found sweating, pigmentation of the skin on the elbow bends, and axillary folds.
What is your diagnosis?
A. Diphtheria
V. Kir
S. Pseudotuberculosis
D. Scarlet fever
E. Krasnukha

9. A 7-year-old child became acutely ill, temperature increased to -38.5°C, and complaints of headache, general weakness, and sore throat when swallowing. Rash on the skin. On examination, there is sharply limited hyperemia

of the tonsils, tongue, soft palate, and follicular tonsillitis. Enlarged and painful submandibular lymph nodes. The skin is hyperemic, and a shallow-spotted rash prevails in the area of elbow bends, on the lateral surfaces of the abdomen, and the axillary folds. The pronounced pallor of the nasolabial triangle.
Your clinical diagnosis?
A. Infectious mononucleosis
V. Diphtheria
S. Kir
D. Scarlet fever
E. Allergic rash

10. A 6-year-old child suffering from food allergies was noted
increase body temperature up to 39°C, headache, pain when swallowing, and one-time vomiting. On the 2nd day of the illness, the doctor found bright hyperemia of the tonsils, a white plaque on the cavities, and a small-dotted rash on a hyperemic background of the skin. Before the doctor's arrival, the mother treated the child with Analgin and ampicillin.
What should you think about it?
A. Diphtheria
B. Infectious mononucleosis
S. Lacunar angina, allergic rash
D. Scarlet fever
E. Pseudotuberculosis

Tasks:

1. A 4-year-old child fell ill 4 days ago. All days, body temperature is 37.5-38˚C, dry cough. A rash appeared today. The parents called the district doctor. Objectively: temperature 37.8˚C, frequent dry cough, conjunctivitis, photophobia. The mucous membrane of the oropharynx is markedly hyperemic. On the mucous membrane opposite the large molars, there is hyperemia and drop-like white plaques that cannot be removed with a spatula. The face and eyelids are more swollen, and behind the ears, there is a spotted papular rash on the unchanged background of the skin. Separate elements of the rash are visible on the upper part of the body. Hard breathing is heard over the lungs without wheezing. There is no other pathology.
1. Make a detailed clinical diagnosis.
2. Carry out a differential diagnosis.
3. Make a plan for laboratory examination
4. Treatment plan for this patient
5. What methods of prevention of this disease do you know

2. A 2-year-old child, acutely ill. The temperature rose to 38˚C in the evening, and a slight cough and runny nose appeared. On the morning of the following day, the mother discovered a rash. The district doctor found a tiny runny nose, and the mucous membrane of the oropharynx is hyperemia—Enanthema on the soft palate. The mucous membrane of the cheek is clean, but there is a rash on all body parts except the palms and feet. Posterior cervical occipital lymph nodes are enlarged, dense, and painful. Internal organs without features. The child's mother is 14 weeks pregnant.
1. Make a preliminary diagnosis.
2. What laboratory tests should be performed on the mother and the child?
3. Assign treatment to the child.
4. Tactics of the doctor with the child's mother.
5. Name the methods of prevention of this infectious disease.

3. A child who fell ill with lacunar angina returned to the middle group of the nursery school. 10 days after his return, he developed lamellar scaling on his hands and feet.
1. What disease did the child suffer from?
2. What tactics should the doctor take with this child?
3. What treatment should be prescribed to the child?
4. What complications are possible with this disease?
5. What will be the anti-epidemic measures in nurseries?

4. A 5-year-old child attending kindergarten became acutely ill: body temperature rose to 39˚C, and repeated vomiting and sore throat were noted. She received paracetamol warm milk with honey. The following day, the temperature is 38.5˚C, the cheeks are flushed, the nasolabial triangle is pale, and the skin of the trunk and limbs (mainly on the flexural surfaces) has an abundant small-droplet rash. In the throat, bright hyperemia of the tonsils brackets. Grayish overlays in the lacunae of both tonsils. Enlarged and painful tonsillar lymph nodes. No changes were detected in other organs.

1. Make a clinical diagnosis.
2. Carry out a differential diagnosis.
3. Schedule an examination for the child. What changes would you expect to see in a general blood count?
4. What are the possible complications of this disease?
5. Prescribe therapy.

4. Summing up:
- checking and discussing the answers of higher education applicants
- control of the level of professional skills and abilities
- evaluation of each answer, setting of grades
- answer to possible questions
- task for the next class

5. List of recommended literature

Basic:
1. Pediatric infectious diseases / S.O. Kramarev, Y.P. Kcharchenko et al., 2014. – K.: VSV "Medicine" – P. 240.
Additional:
1. Infections children's diseases./ Y.P. Kcharchenko, A. M. Mikhailova, S.O. Kramarev I.V., Yurchenko, A.A. Shapovalova, A. I. Savchuk.-Odessa medical State, 2008.-P. 168

2. Orders and instructions of the Ministry of Health of Ukraine "On the improvement of ambulatory polyclinic care for children in Ukraine", "On the improvement of the organization of medical care for adolescent children", protocols for the diagnosis and treatment of diseases in children in the specialties "Pediatrics", "Children's infectious diseases", etc. Ministry of Health of Ukraine.

Practical Lesson No. 3, No. 4

Topic 3: Differential diagnosis in children's respiratory infections (diphtheria, infectious mononucleosis)
Topic 4: Emergencies in children's respiratory infections (diphtheria, infectious mononucleosis)
Goal:
-Assessment (determination) of the level of formation of such components of particular competencies, such as the ability to interview and clinically examine a child, determine the necessary list of laboratory and instrumental studies, evaluate their results, establish a preliminary and clinical diagnosis, decide tactics and provide emergency medical care, determine principles and nature of treatment. Demonstration of medical manipulations used in children's infectious diseases.
-Learn the clinical variants of the course of diphtheria, infectious mononucleosis, mumps, and whooping cough; learn methods of laboratory diagnostics; understand the principles of prevention and treatment; know the prevention of mumps infection and whooping cough, diphtheria, infectious mononucleosis.
- Master the skills of differential diagnosis of diseases: mumps infection, whooping cough, diphtheria, and infectious mononucleosis; skills to investigate the atypical course of diseases clinically.

Basic concepts:
- types of inflammatory process (fibrinous, diphtheritic, croupous)
- disease periods and clinical symptoms of diseases
- Ukhtomskyi's concept of the dominant. The mechanism of development of hypoxia and hypoxemia.
- apnea, its types
- time of appearance of tonsillitis from the onset of the disease, presence of intoxication syndrome, exanthema syndrome, polylymphoadenopathy, hepatolienal syndrome.
The presence of complications: myocarditis, nephritis, arthritis, polyneuropathy. The main clinical symptoms of parotitis, meningitis, pancreatitis
- anti-diphtheria serum

Equipment:

-compendium
- photos of layering on the tonsils in various diseases
-clinical situational typical and atypical tasks
- test tasks on the topic

Plan:

1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).

2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary).
-requirements for students' theoretical readiness to perform practical classes (knowledge requirements, list of didactic units);
-questions (test tasks, problems, clinical situations) to check basic knowledge of the lesson's subject.
Question:
1. Features of causative agents of diphtheria, infectious mononucleosis, epidemic parotitis, whooping cough, and their properties.
2. Epidemiology of diphtheria, infectious mononucleosis, mumps infection, whooping cough (source of infection, ways of transmission, susceptibility). What material should be sent to the laboratory for virological and serological research?
3. Principles of bacteriological, virological research, principles of serological research
4. Peculiarities of pathogenesis, the minimum and maximum incubation periods.
5. The disease's main periods, characteristics, and duration.
6. Differential diagnosis of diphtheria, infectious mononucleosis, epidemic parotitis, whooping cough.
7. Results of laboratory and instrumental research.
8. Classification of diphtheria, infectious mononucleosis, epidemic parotitis, and whooping cough by type, severity, and course. Classification of typical and atypical forms of diphtheria, infectious mononucleosis, epidemic parotitis, whooping cough.
9. Peculiarities of the course in young children. Clinical symptoms and emergency care for apnea.
10. Complications of diphtheria, infectious mononucleosis, epidemic parotitis, whooping cough
11. Prevention of diphtheria, infectious mononucleosis, epidemic parotitis, and whooping cough.

3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.):
- content of tasks (tasks, clinical situations, etc.);

Tasks:

1. On the 7th day of scarlet fever in a 3-year-old child, a temperature rise to 38.5˚C, intoxication phenomena (lethargy, decreased appetite, one-time vomiting), pain in the left ear, and enlargement and tenderness of the submandibular lymph nodes were noted. There is no rash on the skin, but peeling is noted on the tips of the fingers. No abnormalities were found on the part of the internal organs. In the blood analysis: L-16.4 g/l, shift of leukocyte formula to the left, ESR-24 mm/h
1. Make a detailed clinical diagnosis and substantiate it.
2. What is the reason for the deterioration of the child's condition?
3. Assign treatment to the child.
4. When can the child be discharged from the hospital?
5. When can a child be admitted to school?

2. A 4-year-old child came in with complaints of an increase in body temperature up to 39.2˚C, paroxysmal abdominal pain, vomiting, and loose stools with mucus 3 times. I got sick yesterday, the day before I ate a salad of fresh vegetables. During examination: The condition is moderate, lethargic, and complains of muscle pain. The temperature is 38.8˚C. The face is hyperemic and swollen. Swollen fingers, feet, hyperemia of the conjunctiva, and back wall of the pharynx. On the skin of the chest, abdomen, armpits, and inguinal region, there is a profuse rash with tiny spots. In the lungs, vesicular breathing, tachycardia, and muffled heart sounds. Palpation of the abdomen is painful in the epigastric, ileocecal region, the liver + 0.5 cm below the edge of the costal arch. He urinates enough, the stool is liquid 3 times. The general blood analysis showed leukocytosis, neutrophilia with rod-nuclear shift, accelerated ESR, and eosinophilia.
1. Make a preliminary diagnosis
2. Make a plan for examining the child
3. What diseases should be differentially diagnosed?

4. Prescribe treatment
5. Carry out anti-epidemic measures in the cell

3. An 8-year-old child, fully vaccinated against diphtheria, was diagnosed with lacunar angina at the beginning of the disease. On the 3rd day of the illness, the laboratory received a response about the isolation of diphtheria bacillus type gravis. Upon repeated examination, separate islands of white-gray membranous plaques on the tonsils are visible.
1. Make a clinical diagnosis.
2. What research should be conducted to confirm the diagnosis?
3. What diseases should be differentially diagnosed?
4. Prescribe treatment.
5. What preventive measures should be taken?

4. A 3-year-old child came to the clinic with the mother's complaints of an increase in body temperature to 39˚C, "snoring" breathing, and a sore throat in the child. Sick on the 3rd day. At first, nasal breathing became difficult, and snoring appeared at night. The temperature rose yesterday. During the examination, he breathes through his mouth, breathing is "snoring". Enlarged anterior cervical and posterior cervical lymph nodes, 2 x 2 cm, elastic, moderately painful, in other groups - 0.5 x 0.5 cm. There is Hyperemia in the throat swollen tonsils with a yellowish coating that removes easily. Liver +3 cm, spleen +1 cm. There are no other changes.
1. Establish a preliminary diagnosis.
2. Assign additional laboratory tests.
3. Carry out a differential diagnosis.
4. Prescribe treatment.
5. Carry out anti-epidemic measures in the cell

- recommendations (instructions) for performing tasks (professional algorithms, orienting maps for the formation of practical skills and abilities, etc.);

№	Main tasks	Instructions	Answers
1	Characteristics of diphtheria pathogens, infectious mononucleosis, mumps infection, and whooping cough. Epidemiology of infection.	Characteristics of the pathogen, its properties, and stability in the environment. Peculiarities of epidemiology, source of infection, susceptibility, and ways of spreading.	
2	Pathogenesis and clinical variants of the course of infection	Entry gate, distribution in the body, tropism. Classification of clinical forms of diseases. Clinical symptoms of typical and atypical forms. Complications, pathogenesis of development, clinical symptoms.	
3	Laboratory data	Hematological data, urine and blood enzymes, analysis of cerebrospinal fluid, serological diagnosis, ECG, ultrasound, bacteriological and serological examination.	
4	Differential diagnosis	Differential diagnosis with other diseases accompanied by the syndrome of exanthema and angina. Differential diagnosis of whooping cough and mumps infection.	
5	Treatment	Diet, regime, pathogenetic, symptomatic, etiotropic therapy. Indications for hospitalization. Conditions for organizing a hospital stay at home. Treatment of uncomplicated and	

		complicated variants of the disease. Provision of emergency care for apnea and croup	
6	Prevention	Carry out anti-epidemic measures with a focus of infection. Term of isolation of patients, conditions of isolation.	

An indicative map of the patient's examination

Task	Instructions	Answers
1 Anamnesis	When he got sick, date. Symptoms of the prodromal period. When sore throat and cough appeared, date. The duration of the prodromal period. The presence of angina, polylymphadenopathy, exanthema, difficulty breathing, diarrheal syndrome, lesions of joints, heart. When attacks of spasmodic cough appeared	
2 Epidanamnesis	Contact with the patient at school, kindergarten, and home. Was gammaglobulin administered? Vaccination against measles and rubella.	
3. Examination of the patient.	The severity of the condition. Characteristics of angina. Characteristics of a rash with mononucleosis: - The time of appearance of the rash from the onset of the disease. - The sequence of distribution of rash elements on the body's surface. -Localization. -Number of elements (size, shape, color). -The order of disappearance. -The condition of the respiratory system and the cardiovascular system. - How many attacks of spasmodic cough per day, number of repetitions in an attack, apnea. - Palpation of the abdomen, liver, spleen (size). Palpation of salivary glands, pancreas. -Diuresis and defecation. The presence of meningeal signs. The presence of symptoms of arthritis. Presence of complications (myocarditis, nephritis, arthritis).	
4 Laboratory and instrumental data	1. Hematological data. 2. Serological diagnostics (RPGA, RSK, RTGA, ELISA). PCR diagnosis. 3. Bacteriological studies. 4. ECG, X-ray and other	
5Differential diagnosis	Conduct a differential diagnosis between diseases with exanthems, polylymphadenopathy, tonsillitis, and cough. Pay attention to the stages of the disease. Formulate a clinical diagnosis according to the classification.	

6 Treatment	Assign individual treatment to the patient (considering the presence of complications). Draw up a plan for providing emergency care for croup and apnea.	
7 Prevention	Draw up a plan of anti-epidemic measures (concerning the patient and contacts)	

- Requirements for work results, including before registration: In case of independent preparation for the practical lesson, fill out the guide card for the practical lesson.

Applicants must observe academic integrity, namely:
• independent performance of all types of work, tasks, and forms of control provided for by the work program of this educational discipline;
• references to sources of information in the case of using ideas, developments, statements, information;
• compliance with the legislation on copyright and related rights;
• provision of reliable information about the results of one's own educational (scientific) activity using research methods and sources of information.

- Control materials for the final stage of the lesson: tasks, tests, etc. (if necessary).

1. A 5-year-old child with complaints of febrile fever, maculopapular rash, difficult nasal breathing, white-yellow plaques on the palatine tonsils, enlargement of all groups of lymph nodes, especially posterior ones, enlargement of the liver and spleen, is examined in the hospital. The blood test shows a leukemic reaction of the monocytic type. For which disease is this symptom characteristic?
A. Kir
B. Diphtheria of the tonsils
C. Infectious mononucleosis
D. Scarlet fever
E. Pseudotuberculosis

2. A 7-year-old child was admitted with complaints of acute onset of the disease, febrile fever, hoarse voice, difficulty breathing, enlargement of cervical lymph nodes, slight icterus of the skin and sclera. During the examination, the doctor found an increase in the liver and spleen, moderate hyperemia of the mucous membrane of the tonsils, brackets, and the back wall of the pharynx, and yellow plaques leaving the lacunae. There is suspected infectious mononucleosis. What is mainly affected by infectious mononucleosis?
A. Gastrointestinal tract
B. Interstitial tissue
C. Respiratory tract
D. Lymphoid tissue
E. Central nervous system

3. A 5-year-old child was hospitalized on the 4th day of illness. He has a febrile fever, pronounced symptoms of intoxication, complains of moderate pain in the throat when swallowing, breathing through the nose, snoring, breathing through the mouth, and his voice is hoarse. On the skin of the trunk, a pink, slight maculopapular rash, polyadenopathy, hepatosplenomegaly, and angina. What additional methods of examination are necessary to clarify the diagnosis?
A. General blood analysis, detection of plasma cells
lymphocytes
B. Determination of markers for viral hepatitis
C. Culture from the throat and nose of Corynebacterium diphtheria.
D. Blood culture for I. pseudotuberculosis
E. RHGA with measles antigen

4. A 3-year-old child was hospitalized with a diagnosis of infectious mononucleosis. The causative agent of the disease is a virus of the herpesvirus family. To which system is the tropic pathogen?
A. Lymphoid-reticular system
B. Respiratory system
C. Glandular organs
D. Digestive tract
E. Endocrine system

5. A 10-year-old child was hospitalized with a diagnosis of diphtheria of tonsils, widespread form. When examining the oropharynx, there is stagnant hyperemia of the mucous membrane, the tonsils are enlarged, and the surface is completely covered with white-gray plaques that extend beyond the tonsils.
All factors are important for film formation, except:
A. Superficial tissue necrosis
B. Increased vascular permeability
C. Exudation of fibrinogen
D. Release of thrombokinase
E. Purulent decay of tissue

6. A 5-year-old child was admitted with complaints of high body temperature, sore throat when swallowing, and headache. On examination - bright hyperemia of the mucous membrane
oropharynx, there is a yellow plaque in the lacunae of the tonsils, and there is no swelling. Enlarged and painful submandibular lymph nodes.
What pathogens, except for one, can cause the development of angina:
A. Streptococcus
B. Diphtheria bacillus
C. Adenovirus
D. Epstein-Barr virus
E. Rubella virus

7. It is not typical for orchitis with epididymitis
A. occurs in young children
B. appears on the 6-8th day after the onset of the disease
S. may not be accompanied by damage to the salivary glands
D. both steroidal and non-steroidal anti-inflammatory drugs should be used for treatment

8. In patients with epiparotitis, on the 5th day after the onset of the disease, vomiting and sharp pain in the upper abdomen appeared, the false statement regarding this patient is:
A. this condition is a manifestation of parotitis
B. intensive therapy is necessary for the treatment of this patient
S. it is not possible to establish a diagnosis based on an increase in α-amylase
Excretory cholecystography is indicated for D. patients
E. to establish a diagnosis, it is possible to carry out ultrasound diagnostics, tomography,

9. It is not advisable to:
A. isolation of the patient before the reduction of clinical manifestations of the disease, but not
B. less than 9 days
S. establishment of quarantine in children's institutions from 11 to 21 days from
the moment of the last contact
D. prophylactic administration of interferon

Tasks:
1. A 4-year-old child who was exposed to diphtheria in kindergarten. During the examination, diphtheria bacillus type gravis toxigenic was isolated from the throat. Objectively, the throat is clean, and there are no plaques. The child is active, there are no catarrhal phenomena. Internal organs without pathology.
1. Make a diagnosis.
2. Are additional laboratory tests needed to make a diagnosis or not? If so, which ones?
3. What diseases should be differentially diagnosed?
4. Assign treatment to the child.
5. When can a child attend a children's group?

2. A 4-year-old child was admitted to the clinic with complaints of an increase in body temperature to 39˚C, a sore throat, an increase in cervical lymph nodes, and a rash on the body. According to his mother, he has been ill for the 5th day. The disease began with difficulty breathing through the nose, snoring at night, and a temperature of 37˚C. The district doctor prescribed Ampicillin. During the following days, the condition did not improve, the fever reached 37.5-38 °C. Yesterday, a sore throat and a rash appeared on the body. On examination: a maculopapular rash on the skin of the trunk and limbs, hyperemic pharynx, enlarged, hypertrophied tonsils, purulent plaques in lacunae. Posterior cervical, submandibular lymph nodes 2x3 cm, painful. In other groups, lymph nodes are 0.5x1 cm. Liver +2 cm, spleen +1.5 cm.

1. Make a preliminary diagnosis.
2. Assign additional laboratory tests.
3. Carry out a differential diagnosis.
4. Assign treatment to the child.
5. Carry out anti-epidemic measures in the cell

3. A 7-year-old child was brought to the hospital from an orphanage with a diagnosis of measles.
Sick on the 3rd day. The temperature is 38˚C, and the face is pale pasty. A maculopapular rash appeared yesterday on the skin of the body and limbs. Posterior cervical lymph nodes 3x2 cm, painful, mobile. In other groups, they are enlarged to 1x0.5 cm. Hyperemia of the mucous membrane of the oropharynx is noted, and the tonsils are hypertrophied. Liver +3 cm, spleen +2 cm. No other changes were detected.
1. Make a presumptive diagnosis.
2. Assign a plan of necessary research.
3. Carry out a differential diagnosis.
4. Assign treatment to the child.
5. Carry out anti-epidemic measures in the cell

4. In a 7-year-old child, contact with a patient with diphtheria, diphtheria bacillus type gravis, non-toxigenic, was isolated during the examination. Objectively: the temperature is 37.3˚C, hyperemia of the mucous membrane of the oropharynx is noted, the tonsils are hypertrophied in the 2nd century, and there are no plaques. Enlarged submandibular lymph nodes, moderately painful. Cough, no runny nose. No other pathology was found. The child suffers from chronic tonsillitis. Attends the 1st grade of a boarding school.
1. Make a preliminary diagnosis.
2. based on which data was the diagnosis made?
3. What additional research should be done to clarify the diagnosis?
4. Prescribe treatment.
5. Carry out anti-epidemic measures at school.

5. A 2nd grade student approached the boarding school doctor complaining of fever, malaise, and sore throat. During examination: temperature 37.8˚C. The boy is lethargic and pale, his skin is clean. Hyperemia of the oropharynx's mucous membrane is moderately enlarged, and tonsils are covered with white membranous plaques. The submandibular lymph nodes are enlarged and somewhat painful. Above the lungs, breathing is vesicular. Heart sounds are muffled, pulse 90 beats. Per minute, no other pathology was found.
1. Make a preliminary diagnosis.
2. What studies will confirm the diagnosis?
3. Prescribe treatment.
4. What actions should the school doctor take regarding the patient and contacts?
5. What vaccinations did the child receive against diphtheria?

4. Summing up:
- checking and discussing the answers of higher education applicants
- control of the level of professional skills and abilities
- evaluation of each answer, setting of grades
- answer to possible questions
- task for the next class

5. List of recommended literature

Basic:
1. Pediatric infectious diseases / S.O. Kramarev, Y.P. Kcharchenko et al., 2014. – K.: VSV "Medicine" – P. 240.
Additional:
1. Infections children’s diseases./ Y.P. Kcharchenko, A. M. Mikhailova, S.O. Kramarev I.V., Yurchenko, A.A. Shapovalova, A. I. Savchuk.-Odessa medical State, 2008.-P. 168

2. Orders and instructions of the Ministry of Health of Ukraine "On the improvement of ambulatory polyclinic care for children in Ukraine", "On the improvement of the organization of medical care for adolescent children", protocols for the diagnosis and treatment of diseases in children in the specialties "Pediatrics", "Children's infectious diseases", etc. Ministry of Health of Ukraine.

Practical lesson No.5, No.8

Topic: Differential diagnosis of neuroinfections in children (meningococcal infection, enterovirus infection, poliomyelitis, serous and purulent meningitis, viral encephalitis) Emergency conditions in children with neuroinfections. Diagnosis and treatment

Goal:
-Assessment (determination) of the level of formation of such components of particular competencies, such as the ability to interview and clinically examine a child, determine the necessary list of laboratory and instrumental studies, evaluate their results, establish a preliminary and clinical diagnosis, decide tactics and provide emergency medical care, determine principles and nature of treatment. Demonstration of medical manipulations used in children's infectious diseases.
-Learn the pathogenesis, classification, and clinical variants of the course of meningococcal infection, enterovirus infection, and poliomyelitis; learn methods of laboratory diagnostics; learn the principles of prevention and treatment of these diseases
- To master the skills of taking an anamnesis, objective examination of patients, carrying out differential diagnosis of diseases (meningococcal infection, enterovirus infection, and poliomyelitis; to be able to clinically investigate the atypical course of meningococcal infection, enterovirus infection, and poliomyelitis, to be able to detect complications in these diseases; to study the course of emergency conditions; learn the principles of providing emergency care in emergency conditions (ITS, cerebral edema)

Basic concepts:
- exanthema, enanthema, types of rashes
- the dynamics of the rash in various diseases (the time of the appearance of the rash from the onset of the disease, the sequence of the distribution of the elements of the rash on the surface of the body, its localization, the number of elements, their size, shape, color, order of disappearance)
- meningeal syndrome
- central and peripheral paralysis
- infectious-toxic shock

Equipment:
-compendium
- photos of various types of exanthema
-photographs of exanthema in case of meningococcal infection, enterovirus infection
-clinical situational typical and atypical tasks
- test tasks on the topic

Plan:

1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).

2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary).
-requirements for students' theoretical readiness to perform practical classes (knowledge requirements, list of didactic units);

-questions (test tasks, problems, clinical situations) to check basic knowledge of the lesson's subject.
Question:
1. What anatomophysiological features contribute to the development of meningitis in young children?
2. What pathogens are known to you that can cause serous and purulent processes in the nervous system? What are the properties of pathogens: meningococcus, enterovirus, poliomyelitis virus?
3. What symptoms are part of the meningeal syndrome?
4. What is the difference between meningitis and encephalitis?
5. Benzylpenicillin is prescribed for a generalized form of meningococcal infection, and chloramphenicol succinate is used for fulminant forms of meningococcemia. What properties of antibiotics is this related to?
6. How does the cerebrospinal fluid in viral serous meningitis differ from serous meningitis of tuberculous etiology?
7. What complications must you watch out for during a spinal tap?
8. Clinical symptoms of meningococcal infection, enterovirus infection, and poliomyelitis.
9. Methods of laboratory and instrumental diagnosis of diseases.
10. Principles of treatment of meningococcal infection, enterovirus infection, and poliomyelitis.
11. Principles of anti-epidemic measures focusing on infectious diseases (meningococcal, enterovirus, poliomyelitis).
12. What anatomy-physiological features in young children contribute to developing ITS, cerebral edema, and seizures?
13. Clinical symptoms of ITS, cerebral edema, convulsive syndrome.

14. Methods of laboratory and instrumental diagnosis of diseases and complications.
15. Principles of providing emergency care for ITS, cerebral edema, and convulsions.

3. Formation of professional skills and abilities (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.):
- content of tasks (tasks, clinical situations, etc.);

Tasks:
1. During the examination of children in the kindergarten group, where there was a meningococcal infection, a child in whom meningococcus was isolated from the nasopharynx was found. During the examination, the body temperature was normal, there was a slight runny nose, the mucous membrane and tonsils were hyperemic, and the follicles on the back wall of the pharynx were enlarged.
1. Make a diagnosis
2. What diseases should be excluded?
3. What additional studies are needed to clarify the diagnosis
4. Prescribe treatment
5. Carry out anti-epidemic measures in the kindergarten.

2. A 1.5-year-old child attends kindergarten. She became acutely ill: her body`s temperature rose, catarrhal phenomena, lethargy. In 3 days, the temperature normalized, on the 5th day of illness, the child could not stand on his feet. The examination revealed that the absence of active movements in the lower limbs decreased tendon reflexes, more on the left leg than on the right. The left leg is a touch colder than the right. There are no other deviations.
1. Make a diagnosis
2. Assign a laboratory examination to the child.
3. Prescribe treatment.
4. What anti-epidemic measures should be implemented?
5. What vaccinations did the child receive according to the calendar?

3. 17 children from one group fell ill in a kindergarten within 4 days. The disease began acutely in all of them, the body temperature rose to 38-40˚C, and they had headaches. Hyperemia of the pharynx was noted in all children. 7 children had repeated vomiting, and 3 had a spotted-papular rash on the skin. 7 children with vomiting had positive meningeal symptoms, and lymphocytic pleocytosis was found in the cerebrospinal fluid upon puncture.
1. An outbreak of which infectious disease should be suspected?
2. What clinical forms of this disease can be identified in the infection center? What clinical forms of the disease are still known?
3. What laboratory tests should be carried out?
4. Prescribe treatment.
5. What anti-epidemic measures should be implemented?

- recommendations (instructions) for performing tasks (professional algorithms, orienting maps for the formation of practical skills and abilities, etc.);

№	Main tasks	Instructions	Answers
1	Characteristics of causative agents of meningococcal infection, enterovirus infection, poliomyelitis. Epidemiology of infection.	Characteristics of the pathogen, its properties, and stability in the environment. Peculiarities of epidemiology, source of infection, susceptibility, and ways of spreading.	
2	Pathogenesis and clinical variants of the course of infection	Entry gate, distribution in the body, tropism. Classification of clinical forms of diseases. Clinical symptoms of typical and atypical forms. Complications, pathogenesis of development, clinical symptoms. Pathogenesis of ITS, cerebral edema.	
3	Laboratory data	Hematological data, urine, blood enzymes, cerebrospinal fluid analysis, serological diagnosis.	

4	Differential diagnosis	Differential diagnosis with other diseases.	
5	Treatment	Diet, regime, pathogenetic, symptomatic, etiotropic therapy. Indications for hospitalization. Conditions for organizing a hospital stay at home. Treatment of uncomplicated and complicated variants of the disease.	
6	Prevention	Carrying out anti-epidemic measures with a focus on infection. Term of isolation of patients, conditions of isolation.	

An indicative map of the patient's examination

Task	Instructions	Answers
1 Anamnesis	When he got sick, date. Symptoms of the prodromal period. When sore throat and cough appeared, date. The duration of the prodromal period.	
2 Epidanamnesis	Contact with the patient at school, kindergarten, and home. Has the child been vaccinated against poliomyelitis?	
3. Examination of the patient.	The severity of the condition. Characteristics of the main symptoms: 1. Time of appearance of symptoms from the onset of the disease. 2. The sequence of symptoms of the disease. 3. Localization of the process. 4. Number of rash elements (size, shape, color). 5. The order of disappearance of signs of the disease. 6. Presence of complications and their severity. State of respiratory organs and cardiovascular system. Symptoms from the nervous system. Palpation of the abdomen, liver, and spleen (size). Diuresis and defecation. The presence of meningeal signs. The presence of paresis paralysis.	
4 Laboratory and instrumental data	1. Hematological data. 2. Serological diagnostics (RPGA, RSK, RTGA, IFA). PCR diagnosis. 3. Bacteriological studies. 4. ECG, X-ray and other	
5Differential diagnosis	Carry out a differential diagnosis of meningococcal infection, enterovirus, and poliomyelitis. Pay attention to the stages the period of the disease. Formulate a clinical diagnosis according to the classification.	

6 Treatment	Assign individual treatment to the patient (considering the presence of complications). Provide emergency care to a patient with ITS at the pre-hospital and hospital stages. Provide emergency care for cerebral edema convulsions.	
7 Prevention	Draw up a plan of anti-epidemic measures (concerning the patient and contacts)	

- Requirements for work results, including before registration: In case of independent preparation for the practical lesson, fill out the guide card for the practical lesson.

Applicants must observe academic integrity, namely:
• independent performance of all types of work, tasks, and forms of control provided for by the work program of this educational discipline;
• references to sources of information in the case of using ideas, developments, statements, information;
• compliance with the legislation on copyright and related rights;
• provision of reliable information about the results of one's own educational (scientific) activity using research methods and sources of information.

- Control materials for the final stage of the lesson: tasks, tests, etc. (if necessary).

1. A 4-month-old child became acutely ill: the body temperature was 38.5 C. He was vomiting once, he was lethargic. After 10 hours, a rash appeared on the skin of the buttocks and lower limbs in the form of petechiae, spots, and papules. Some hemorrhagic elements with necrosis in the center. What disease is most characteristic?
A. Meningococcemia
V. Krasnukha
S. Influenza
D. Hemorrhagic vasculitis
E. Scarlatina

2. There is a meningococcal infection in a family of 4 persons aged 3 to 30 years. What emergency prevention should be carried out among contact persons?
A. Prescribe an antibiotic
B. Vaccinate with meningococcal vaccine
C. Enter normal human immunoglobulin
D. Prevention should not be carried out
E. Rinsing the oropharynx with an antiseptic

3. The child is 9 months old. became acutely ill. Body temperature is 39.5˚C, restless. When examining the skin of the thighs and lower abdomen, isolated spotted-papular rashes. The mucous membrane of the oropharynx is hyperemic, and there are many inflammatory layers on the back wall of the pharynx. Heart rate 170 bpm. Breathing rate 50 in 1 min. After 4 hours, the child's rashes became hemorrhagic, of various sizes, "star-shaped". The condition worsened. The phenomena of general toxicosis increased. What is the most likely diagnosis?
A. Kir
V. Scarlatina
S. Meningococcemia
D. Chickenpox
E. Influenza with hemorrhagic syndrome

4. A 1.5-year-old child, not vaccinated, was admitted to inpatient treatment on the 5th day of illness due to lethargic paralysis of the left leg. The examination revealed restriction of movements and hypotonia of the muscles of the proximal part of the limb with preserved sensitivity. Where is the lesion localized in the central nervous system?
A. Anterior horns of the spinal cord
V. Soft meninges
S. Brain substance

D. Posterior horns of the spinal cord
E. Peripheral nerves

5. A 12-month-old child developed weakness in the right leg 8 days after a short febrile fever, weakness, and diarrhea. The doctor suspected poliomyelitis. What form of damage to the nervous system can you think of?
A. Meningeal
V. Pontina
S. Spinalna
D. Mixed
E. Bulbarna

6. A 3-year-old boy was taken to a hospital in serious condition. Objectively: somnolence, hyperreflexia, convulsions, hyperesthesia, uncontrollable vomiting, body temperature 39.9˚C, heart rate 160 bpm, BP 80/40 mmHg. What research should be done first?
A. Lumbar puncture
V. Rheoencephalography
CT scan of the brain
D. X-ray of the skull
E. Echoencephalography

Tasks:

1. A 4-year-old child became acutely ill when the body temperature rose to 38.9˚C, and nasal congestion, coughing, abdominal pain, lethargy, headache, and sweating, especially of the head, appeared. With a diagnosis of ARVI, the child was at home, receiving symptomatic therapy (antipyretics, drops in the nose). After 2 days, the temperature normalized. The next day, the body temperature rose again to 39.5˚C, the headache intensified, he vomited once, and he refused to eat. The mother drew attention to the asymmetry of the face. The district doctor was called. During the examination, smoothing of the nasolabial fold on the left, pulling the corner of the mouth to the healthy side, widening of the eye slit on the left, inability to close the eyes completely when raising the eyebrows on the left, there are no horizontal folds on the forehead on the left. Sensitivity in the left half of the face is not disturbed. Swallow and breathing speech are not a concern. BP with a tendency to decrease, tachycardia. No other changes were detected. From the anamnesis - the child was often sick and not fully vaccinated.
1. Make a possible diagnosis.
2. What additional research will help refine the research?
3. What diseases should be differentially diagnosed?
4. Prescribe treatment
5. What anti-epidemic measures should be carried out in the cell?

2. A 1-year-old, 6-month-old child who attends a daycare center has a body temperature of 38˚C, nausea, vomiting twice, and abdominal pain. There are mild symptoms of catarrh of the upper respiratory tract. After 2 days, a liquid stool with a slight admixture of mucus appeared 3 times a day, and a small-spotted, pale-pink rash on the body and limbs. There is no other pathology.
1. Make a preliminary diagnosis.
2. Assign the necessary laboratory tests.
3. Conduct a differential diagnosis with other diseases that have similar symptoms.
4. Assign treatment to the child.
5. What anti-epidemic measures should be carried out in the cell?

3. A 1.5-year-old child developed lethargic paralysis on the 20th day after receiving intravenous fluids without impaired sensitivity. A vaccine-related strain of poliomyelitis virus type 3 was isolated during the examination.
1. Diagnose the child, considering the history and clinical picture.
2. Are additional examinations required to clarify the diagnosis?
3. Assign treatment to the child.
4. What is the ZVS vaccine?
5. Conditions for discharge of a child from a hospital

4. A 4-year-old child became acutely ill with an increase in temperature to 39.6°C, headache, and anxiety. The child's condition gradually worsened: he became lethargic, refused food, and there was repeated vomiting. Examined by an emergency doctor. The condition is severe. The child is mentally disabled, t - 36.6˚C, Ps - 178 per minute. , weak filling. Heart tones are weakened. Blood pressure - 60 / 10 mm Hg. Art. , BH - 62 in min. The skin is pale, acrocyanosis, a hemorrhagic rash of an irregular shape, dense to the touch, up to 3-5 mm in diameter, appears on the buttocks, limbs, and trunk. There are no meningeal symptoms.

1. Make a detailed clinical diagnosis.
2. What research should be done to confirm the diagnosis?
3. Assign treatment to the child.
4. Define the leading pathological syndrome,
5. Draw up an emergency care plan at the pre-hospital stage and in the hospital.

5. The child is 2 years old, and he has clinical signs of meningococcal infection, meningococcemia, and infectious-toxic shock of the 2nd degree. 14 hours have passed since the onset of the disease. An ambulance was called to the house.
1. Describe the clinical signs of this disease
2. What urgent medical measures should be carried out?
3. What laboratory tests should be carried out to clarify the diagnosis?
4. What diseases should be differentially diagnosed?
5. Conditions for discharge of a child from a hospital

4. Summing up:
- checking and discussing the answers of higher education applicants
- control of the level of professional skills and abilities
- evaluation of each answer, setting of grades
- answer to possible questions
- task for the next class

5. List of recommended literature

Basic:
1. Pediatric infectious diseases / S.O. Kramarev, Y.P. Kcharchenko et al., 2014. – K.: VSV "Medicine" – P. 240.
Additional:
1. Infections children's diseases./ Y.P. Kcharchenko, A. M. Mikhailova, S.O. Kramarev I.V., Yurchenko, A.A. Shapovalova, A. I. Savchuk.-Odessa medical State, 2008.-P. 168

2. Orders and instructions of the Ministry of Health of Ukraine "On the improvement of ambulatory polyclinic care for children in Ukraine", "On the improvement of the organization of medical care for adolescent children", protocols for the diagnosis and treatment of diseases in children in the specialties "Pediatrics", "Children's infectious diseases", etc. Ministry of Health of Ukraine.

Content module 2.
Practical lesson No.7,8

Topic 7. Differential diagnosis of acute intestinal infections in children (invasive, secretory, osmotic diarrhea).
Topic 8. Emergency conditions with acute intestinal infections in children. Diagnosis and treatment.

Goal:
-Assessment (determination) of the level of formation of such components of particular competencies, such as the ability to interview and clinically examine a child, determine the necessary list of laboratory and instrumental studies, evaluate their results, establish a preliminary and clinical diagnosis, decide tactics and provide emergency medical care, determine principles and nature of treatment. Demonstration of medical manipulations used in children's infectious diseases.
-Learn the pathogenesis, classification, and clinical variants of the course of intestinal infections; learn the clinical symptoms of emergency conditions with AII (neuro toxicosis, toxicosis with exicosis, ITS, hypovolemic shock), learn methods of laboratory diagnostics; learn the principles of prevention and treatment of these diseases
- Master the skills of differential diagnosis of diseases, master the principles of therapy and the principles of preventive measures for intestinal infections in children; clinically investigate the atypical course of intestinal infections, the ability to detect complications in these diseases and provide emergency aid in the event of dehydration or neurotoxicosis

Basic concepts:
- peculiarities of the state of water-salt metabolism and acid-alkaline metabolism in children
- clinical symptoms in AII
- differences between neurotoxicosis and toxicosis with exicosis in AII.
- infectious-toxic and hypovolemic shock

Equipment:
-compendium
-clinical situational typical and atypical tasks
- test tasks on the topic

Plan:

1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).

2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary).
-requirements for students' theoretical readiness to perform practical classes (knowledge requirements, list of didactic units);

-questions (test tasks, problems, clinical situations) to check basic knowledge of the lesson's subject.

Question:
1. The importance of studying acute intestinal infections in children (invasive diarrhea).
2. Semiotics of gastrointestinal tract lesions in children.
3. Source of infection, susceptibility to infection in children of different age groups.
4. Pathogenesis of invasive diarrhea in children.
5. Clinical features of dysentery, salmonellosis.
6. Clinical features of group 2 escherichia, yersiniosis, enterocolitis caused by opportunistic flora.
7. Laboratory diagnosis of AII in children.
8. Differential diagnosis of AII in children.
9. Principles of treatment of invasive diarrhea in children.
10. Principles of anti-epidemic measures in outbreaks of AII.
11. The concept of secretory diarrhea. The concept of osmotic diarrhea. Pathogenesis of diarrhea.
12. Etiology, age susceptibility, and epidemiology of escherichia of I and III groups, cholera, rotavirus infection.
13. Features of the clinical course of escherichia of I and III groups, cholera, and rotavirus infection in children of different ages.
14. Laboratory diagnostics of AII under consideration.
15. Differential diagnosis between secretory AII.
16. Principles of treatment of secretory AII.
17. Principles of prevention of AII (esherichiosis of groups I and III, cholera, rotavirus diarrhea).
18. Differential diagnosis of emergency conditions with AII in children.
19. Laboratory diagnosis of emergency conditions with AII in children.

20. The concept of toxicosis with AII. Types of intestinal toxicosis.
21. Basic principles of treatment of toxicosis with exicosis in children of different age groups.

3. Formation of professional skills and abilities (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.):
- content of tasks (tasks, clinical situations, etc.);

Tasks:
1. The child is 1.5 years old. She became acutely ill today; there was an increase in body temperature to 39.2˚C, repeated vomiting, abdominal pain, and liquid stools appeared, which after a few hours turned green, with mucus and streaks of blood. The stool is very frequent, in small portions. The act of defecation is accompanied by anxiety and crying of the child, straining
1. Make a preliminary diagnosis
2. What diseases should be differentially diagnosed
3. Assign the necessary research to clarify the etiology of the disease
4. Prescribe treatment to the child
5. What anti-epidemic measures should be implemented in the cell?

2. A 10-year-old child is in a pioneer camp. She became acutely ill today when her body temperature rose to 38.5 ˚C, and chills, one-time vomiting, and abdominal pain appeared. After 2 hours, frequently up to 10 times, liquid and then scanty stools of green color with mucus and blood streaks appeared. There are frequent and painful urges to the bottom.
1. What is the diagnosis in this case?
2. What are the actions of the pioneer camp doctor?
3. What additional examination should be performed on the child?
4. Give treatment to the boy
5. What anti-epidemic measures should be implemented in the camp?

3. A 3.5-year-old boy became acutely ill in kindergarten when he developed a fever of up to 40˚C, vomited three times, and once had a mushy stool with impurities of mucus. Orally received analgin and furazolidone. An hour later, clonic-tonic convulsions appeared against the background of persistent fever. The "emergency" doctor made a preliminary diagnosis: Influenza?
1. Your previous diagnosis? Do you agree with the district doctor's diagnosis?
2. What urgent medical measures should be taken?
3. What additional studies are necessary to clarify the diagnosis?
4. Prescribe treatment
5. Conditions for discharge from a hospital

- recommendations (instructions) for performing tasks (professional algorithms, orienting maps for the formation of practical skills and abilities, etc.);

№	Main tasks	Instructions	Answers
1	Characteristics of pathogens that cause AII. Epidemiology of infection.	Characteristics of the pathogen, its properties, and stability in the environment. Peculiarities of epidemiology, source of infection, susceptibility, and ways of spreading.	
2	Pathogenesis and clinical variants of the course of infection	Entry gate, distribution in the body, tropism. Classification of clinical forms of diseases. Clinical symptoms of typical and atypical forms. Complications, pathogenesis of development, clinical symptoms.	
3	Laboratory data	Hematological data, urine, and blood enzymes, analysis of cerebrospinal fluid. Bacteriological and serological diagnosis.	

4	Differential diagnosis	Differential diagnosis with other diseases.	
5	Treatment	Diet, regime, pathogenetic, symptomatic, etiotropic therapy. Indications for hospitalization. Conditions for organizing a hospital stay at home. Treatment of uncomplicated and complicated variants of the disease.	
6	Prevention	Carrying out anti-epidemic measures with a focus of infection. Term of isolation of patients, conditions of isolation.	

An indicative map of the patient's examination

Task	Instructions	Answers
1 Anamnesis	When he got sick, date. Symptoms of the prodromal period. When sore throat and cough appeared, date. The duration of the prodromal period.	
2 Epidanamnesis	Contact with the patient at school, kindergarten, and home. Has the child been vaccinated against?	
3. Examination of the patient.	The severity of the condition. Characteristics of the main symptoms: 1. Time of appearance of symptoms from the onset of the disease. 2. The sequence of symptoms of the disease. 3. Localization of the process. 4. The presence of toxicosis with AII (type of toxicosis). 5. Presence of signs of dehydration. 6. Presence of complications and their severity. State of respiratory organs and cardiovascular system. Symptoms from the nervous system. Gastrointestinal symptoms. Palpation of the abdomen, liver, and spleen (size). Diuresis and defecation. The presence of meningeal signs.	
4 Laboratory and instrumental data	1. Hematological data. 2. Serological diagnostics (RPGA, RSK, RTGA, IFA). PCR diagnosis. 3. Bacteriological studies. 4. ECG, X-ray and other	
5Differential diagnosis	Carry out a differential diagnosis of AII. Please pay attention to the period of the disease and its severity. Formulate a clinical diagnosis according to the classification.	
6 Treatment	Assign individual treatment to the patient (considering the presence of	

	complications). Compile an emergency aid algorithm for neurotoxicosis and dehydration at the pre-hospital and hospital stages.	
7 Prevention	Draw up a plan of anti-epidemic measures (concerning the patient and contacts)	

- Requirements for work results, including before registration: In case of independent preparation for the practical lesson, fill out the guide card for the practical lesson.

Applicants must observe academic integrity, namely:
• independent performance of all types of work, tasks, and forms of control provided for by the work program of this educational discipline;
• references to sources of information in the case of using ideas, developments, statements, information;
• compliance with the legislation on copyright and related rights;
• provision of reliable information about the results of one's own educational (scientific) activity using research methods and sources of information.

- Control materials for the final stage of the lesson: tasks, tests, etc. (if necessary).

1. A 3-month-old boy has severe watery diarrhea for 12 hours. Objectively: reduced tissue turgor, inflamed eyes, dry oral mucosa, oliguria.
What pathogens are characterized by similar symptoms:
A. Shigella dysenteriae.
B. Enterohemorrhagic E. Coli.
C. Salmonella typhi, Enteroinvasive E. Coli.
D. Enterotoxigen E. Coli, Vibrio Cholerae.
E. Helicobacter pylori, Plesiomonas shigeloides.

2. A 10-month-old child has persistent diarrhea for 2 weeks.
Differential diagnosis of diseases caused by which pathogens must be carried out:
A. Shigella dysenteriae, Vibrio cholerae, Pseudomonas shigeloides.
B. Enterotoxigenic E. Coli, Enterohemorrhagic E. Coli.
C. Enteropathogenic E. Coli, Salmonella typhimurium, Aeromonas aviae.
D. Enteroinvasive E. Coli, Norwalk viruses, rotaviruses.
E. Campelobacter jejuni, Helicobacter pylori.

3. Profuse diarrhea has been observed in the infant for 3 days: heart rate = 200 per minute, reduced perfusion, peripheral pulse is weak.
Choose the optimal treatment:
A. Infusion of glucose-saline solutions.
B. Dopamine infusion.
C. Appointment of atropine.
D. Prednisone prescription.
E. Hemodesis infusion.

4. A 5-month-old child who was acutely ill had a fever and frequent liquid stool with a large water stain, undigested, without additional impurities.
Name the main link of pathogenetic therapy:
A. Rehydration therapy.
B. Fermentotherapy.
C. Appointment of sorbents.
D. Appointment of eubiotics.
E. All answers are correct.

5. An 8-year-old child has a fever of 38, 6ºC, repeated vomiting, stool 15 times with mucus impurities, and blood streaks; on examination, he is pale, and the sigmoid colon is spasmodic. Choose the optimal criteria for antibacterial therapy:
A. The maximum duration is 5-7 days.
B. The dynamics of clinical manifestations determine the maximum duration.
C. If there is no effect within 3 days, a change of antibiotic is necessary.
D. The administration route depends on the disease's severity and the drug's properties.

E. All answers are correct.

6. A 10-month-old child has a severe form of acute Flexner's dysentery. Hyperthermia, repeated vomiting 6 times, stool 15 times, liquid, with a lot of green mucus, blood streaks, straining during defecation, owl legs.
What complications can occur?
A. Infectious-toxic shock.
B. Intestinal bleeding.
C. Peritonitis, intussusception.
D. Prolapse of the rectum, paraproctitis.
E. All answers are correct.

7. In the center of dysentery in two children, the causative agent was identified during the examination. Children do not present complaints; there are no clinical symptoms of the disease.
What forms of dysentery are atypical?
A. Sturti.
B. Dyspeptic.
C. Hypertoxic.
D. Subclinical.
E. All answers are correct.

8. A 5-year-old child with a long-term fever with signs of intoxication, hepatosplenomegaly, and bradycardia has isolated Salmonella typhi monoculture. What characteristic of the pathogen is not typical?
A. Belongs to the enterobacteria family.
B. Gram-positive bacillus.
C. During destruction, endotoxin is formed.
D. Does not form spores and has no capsules.
E. It has two main antigenic complexes: O-antigen and H-antigen.

Tasks:

1. A 6-year-old patient became acutely ill 3 hours after eating sausages that had been kept outside the refrigerator for 2 days. Vomiting appeared up to 6 times, abdominal pain, weakness, and dizziness. By the evening, the temperature rose to 38.8˚C, and liquid stool, smelly, "as water", thirst appeared. On admission, the condition is of medium severity; the temperature is 38.2˚C; the skin is pale; the turgor of tissues is reduced. The tongue is coated with a dry white coating. The abdomen is moderately distended, painful when palpated in the navel region, and grumbling. The liver and spleen are not enlarged. The stool is watery and smelly, with impurities of green and a small amount of mucus.
1. Make a clinical diagnosis.
2. What studies should be conducted for this child to clarify the etiology of the disease?
3. Carry out a differential diagnosis.
4. Prescribe treatment
5. Carry out anti-epidemic measures in the cell.

2. The child is 6 months old and has been sick for 4 days, the temperature is 37.5-38.7ºC, belching has changed to vomiting up to 6 times a day, he refuses to drink, the stool has become more frequent up to 20 times, abundant, watery, with mucus and greens. They did not consult a doctor. When entering on the 5th day of the disease, the condition is severe; consciousness is disturbed (sopor), the skin is pale with a grayish tint, cold to the touch, facial features are sharpened, and the mucous membranes are dry. The pulse is filiform 180 beats/min, blood pressure is 50 / 30 mmHg. The abdomen is sharply distended, peristalsis cannot be heard. Stool abundant, watery with mucus and greens, smelly. Do not urinate for 8 hours. Plasma potassium 2.6 mmol/l, VE (-20), pH 7.16. Body weight 6800. Child on artificial feeding since birth.
1. Make a diagnosis indicating the severity of the disease
2. What diseases should be differentially diagnosed?
3. Prescribe treatment.
4. Calculate the fluid for rehydration therapy
5. What anti-epidemic measures should be implemented?

3. A 3-month-old child has been sick for a week. The disease began acutely, with an increase in body temperature to 37.5^0C, and a bright yellow liquid watery stool appeared with white "chopped egg" lumps. On the 3rd day of the illness, vomiting (1-2 times a day), belching, and stools became more frequent, up to 20 times a day, with significant admixtures of water. The child refuses to eat has lost 600 g in weight (was born with a body weight of 3 kg, body

weight before the disease was 4800). Upon admission, the condition is very severe, the child is lethargic and adynamic. The skin is pale with pronounced "marbling", the lips are dry, and the mucous membranes of the oral cavity and tongue are dry. The tongue is coated with a white coating. Eyes lit up, blinks rarely. Crying is quiet, without tears. Heart sounds are rhythmically weakened. The pulse is soft, and tachycardia is 172 beats per minute. Breathing is hard in the lungs, the stomach is sharply distended, and gases are not passing well. Periodically belches and refuses to eat and drink. Diuresis is reduced. The stool is abundant, watery, and orange in color. Sodium - 130 mmol, potassium - 2.8 mmol.

1. Make a preliminary diagnosis indicating the severity of the disease, the topic of the gastrointestinal tract, and the type of toxicosis.
2. Make an examination plan.
3. Conduct a differential diagnosis with other intestinal infections.
4. Assign treatment to this child.
5. Conditions for discharge from the hospital.

4. Summing up:
- checking and discussing the answers of higher education applicants
- control of the level of professional skills and abilities
- evaluation of each answer, setting of grades
- answer to possible questions
- task for the next class

5. List of recommended literature

Basic:

1. Pediatric infectious diseases / S.O. Kramarev, Y.P. Kcharchenko et al., 2014. – K.: VSV "Medicine" – P. 240.

Additional:

1. Infections children’s diseases./ Y.P. Kcharchenko, A. M. Mikhailova, S.O. Kramarev I.V., Yurchenko, A.A. Shapovalova, A. I. Savchuk.-Odessa medical State, 2008.-P. 168

2. Orders and instructions of the Ministry of Health of Ukraine "On the improvement of ambulatory polyclinic care for children in Ukraine", "On the improvement of the organization of medical care for adolescent children", protocols for the diagnosis and treatment of diseases in children in the specialties "Pediatrics", "Children's infectious diseases", etc. Ministry of Health of Ukraine.

Practical Lesson No.9

Topic 9. Differential diagnosis and emergency conditions in viral hepatitis in children. Diagnosis and treatment. Differential diagnosis of jaundice syndrome in children.

Goal:

-Assessment (determination) of the level of formation of such components of particular competencies, such as the ability to interview and clinically examine a child, determine the necessary list of laboratory and instrumental studies, evaluate their results, establish a preliminary and clinical diagnosis, decide tactics and provide emergency medical care, determine principles and nature of treatment. Demonstration of medical manipulations used in children's infectious diseases.

-Learn the classification clinical variants of the course of viral hepatitis; learn the clinical symptomatology of complications in VH; learn methods of laboratory diagnostics; understand the principles of prevention and treatment of hepatitis, the principles of providing emergency care for hepatitis (hepatic failure, fulminant form of hepatitis)

- To master the skills of collecting anamnesis, objective examination of patients, carrying out differential diagnosis of diseases; master the principles of therapy and the principles of preventive measures for viral hepatitis in children. To clinically study the atypical course of viral hepatitis, the ability to detect complications in these diseases, and to provide emergency care in the event of liver failure hepatic coma.

Basic concepts:

- features of inflammatory processes in the liver.
- peculiarities of bilirubin metabolism in children. Biochemical indicators of damage to liver cells
- clinical symptoms of various types of jaundice, characteristics of cytolysis syndrome
- clinical symptoms in viral hepatitis, clinical signs in the development of liver failure.

Equipment:

-compendium
-clinical situational typical and atypical tasks
- test tasks on the topic

Plan:

1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).

2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary).
- requirements for students' theoretical readiness to perform practical classes (knowledge requirements, list of didactic units);

- questions (test tasks, problems, clinical situations) to check basic knowledge of the lesson's subject.

Question:
1. How does the hepatitis virus enter hepatocytes during enteral and parenteral infection?
2. What pathological syndromes occur with liver damage?
3. What is the normal level of bilirubin in blood serum?
4. What types of jaundice do you know?
5. What liver cell enzymes do you know?
6. What are bile pigments?
7. Classification of viral hepatitis depending on the ways of transmission of infection.
8. Prevalence of viral hepatitis, susceptibility to infection of children of different ages (viral hepatitis A, B, C, D, E).
9. Etiology, epidemiology, clinic, course features, diagnosis, differential diagnosis, treatment, prevention of hepatitis A.
10. Etiology, epidemiology, clinic, diagnosis, differential diagnosis, features of the course of severe forms, hepatodystrophy in children, treatment, prevention of hepatitis B.
11. Etiology, epidemiology, features of the clinical course and outcomes, diagnosis and prevention of hepatitis C
12. Etiology, epidemiology, clinical features, outcomes, diagnosis, and prevention of hepatitis D.
13. Laboratory diagnosis of hepatitis. Marker diagnosis of viral hepatitis.
14. Etiology, epidemiology, features of the clinical course, outcomes, diagnosis, and prevention of hepatitis E.
15. Severe forms of viral hepatitis, features of diagnosis, treatment. Providing emergency care for liver failure coma.
16. Differential diagnosis of jaundice in children of the first year of life.

3. Formation of professional skills and abilities (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.):

-content of tasks (tasks, clinical situations, etc.);

Tasks:

1. In kindergarten, two children fell ill with viral hepatitis A. During the examination of contact children, one child found the liver protruding from under the costal edge by 4 cm the spleen by 0.5 cm. The skin is pale, and the color of urine and feces has not changed. Bilirubin - 18.8 mmol/l, ALT - 2.25 mmol/l, thymol test - 4 units, ACT - 2.05 mmol/l.
1. What is the previous diagnosis?
2. What additional laboratory tests should be performed on the child?
3. Prescribe treatment.
3. What anti-epidemic measures should be implemented in the kindergarten?

2. A 3-year-old child attends kindergarten. For 4 days, the child had a low-grade fever, 2 loose stools, decreased appetite, and complained of abdominal pain. On the 5th day, the mother noticed the darkening of the urine and the lightening of the feces, in connection with which she turned to the district doctor.
1. What is the previous diagnosis? Assign laboratory tests to clarify the diagnosis.
2. What diseases should be differentially diagnosed?
3. Assign treatment to the child.
4. Carry out a complex of anti-epidemic measures.
3. 2 days, 2 days ago, the mother noticed a darkening of the child's urine and a lightening of the feces. The child's well-being has not changed. There was no contact with infectious patients. 3 months ago, in connection with severe pneumonia, she received plasma intravenously. During the examination, subicteric sclera was revealed. The liver protrudes 3 cm from the edge of the costal arch, which is elastic and painful. The spleen protrudes 2 cm from the edge of the costal arch. The heart and lungs are unremarkable.
1. Make a preliminary diagnosis
2. Assign an additional examination to the child to clarify the diagnosis.
3. Carry out a differential diagnosis
4. Assign treatment to the child.
5. What anti-epidemic measures should be taken in the outbreak?

- recommendations (instructions) for performing tasks (professional algorithms, orienting maps for the formation of practical skills and abilities, etc.);

№	Main tasks	Instructions	Answers
1	Characteristics of pathogens that cause viral hepatitis. Epidemiology of infection.	Characteristics of the pathogen, its properties, and stability in the environment. Peculiarities of epidemiology, source of infection, susceptibility, and ways of spreading.	
2	Pathogenesis and clinical variants of the course of infection	Entry gate, distribution in the body, tropism. Classification of clinical forms of diseases. Clinical symptoms of typical and atypical forms. Complications, pathogenesis of development, clinical symptoms.	
3	Laboratory data	Hematological data, urine and blood tests, serological marker diagnostics, and biochemical blood tests.	
4	Differential diagnosis	Differential diagnosis with other diseases.	
5	Treatment	Diet, regime, pathogenetic, symptomatic, etiotropic therapy. Indications for hospitalization. Conditions for organizing a hospital stay at home.	

		Treatment of uncomplicated and complicated variants of the disease.	
6	Prevention	Carrying out anti-epidemic measures with a focus of infection. Term of isolation of patients, conditions of isolation.	

An indicative map of the patient's examination

Task	Instructions	Answers
1 Anamnesis	When he got sick, date. Complaints, onset of illness. History of life. Symptoms of the pre-jaundic period. When the first symptoms appeared, date. The duration of the pre-jaundice period.	
2 Epidanamnesis	Contact with the patient at school, kindergarten, and home. Has the child been vaccinated according to the current vaccination calendar? Did the child receive blood products, whether there were operations, invasive methods of examination, or treatment at the dentist	
3. Examination of the patient.	The severity of the condition. Characteristics of the main symptoms: 1. Time of appearance of symptoms from the onset of the disease. Time of appearance of jaundice, its intensity. 2. The sequence of symptoms of the disease. 3. Localization of the process. 4. The order of the disappearance of the signs of the disease. 5. Color of urine and feces 6. Presence of complications and their severity. State of respiratory organs and cardiovascular system. Symptoms from the nervous system. Gastrointestinal symptoms. Palpation of the abdomen, liver, and spleen (size). Diuresis and defecation. The presence of signs of liver failure.	
4 Laboratory and instrumental data	1. Hematological data. Biochemical data (bilirubin level, its fractions, transaminase level, thymol test) 2. Serological marker diagnostics (ELISA). PCR diagnosis. 3. Bacteriological studies. 4. ECG, X-ray, etc.	
5Differential diagnosis	Carry out a differential diagnosis of jaundice. Please pay attention to the period of the disease and its severity. Formulate a clinical diagnosis according to the classification.	
6 Treatment	Assign individual treatment to the patient (considering the presence of complications). Compile an algorithm for emergency care in case of liver failure.	

7 Prevention	Draw up a plan of anti-epidemic measures (concerning the patient and contacts)	

- Requirements for work results, including before registration: In case of independent preparation for the practical lesson, fill out the guide card for the practical lesson.

Applicants must observe academic integrity, namely:
• independent performance of all types of work, tasks, and forms of control provided for by the work program of this educational discipline;
• references to sources of information in the case of using ideas, developments, statements, information;
• compliance with the legislation on copyright and related rights;
• provision of reliable information about the results of one's own educational (scientific) activity using research methods and sources of information.

- Control materials for the final stage of the lesson: tasks, tests, etc. (if necessary).

1. In a 12-year-old boy who developed acute respiratory distress syndrome after 3 months. Revealed: no jaundice, sclera subicteric, liver 1.5 cm below the costal margin, urine and feces of standard color, bilirubin 40.0 μmol/l, direct bilirubin - 8.0 μmol/l, indirect bilirubin 32.0 μmol/l, ALT - 0.6 mmol/l, thymol test - 3.0 units. What state do these indicators correspond to?
A. Prolonged course of VHA
B. Residual phenomena of VHA
C. Transition to chronic hepatitis
D. Gilbert's syndrome
E. Dyskinesia of biliary tract

2. A 7-year-old child attending the 1st grade of the school was hospitalized in an infectious disease hospital on the 2nd day of the jaundice period with a diagnosis of viral hepatitis. In the school, there were cases of diseases accompanied by jaundice during September. Six months ago, preventive vaccinations were carried out at school in the spring. What type of hepatitis should be considered first?
A. Viral hepatitis B
B. Viral hepatitis C
C. Viral hepatitis A
D. Viral hepatitis E
E. Viral hepatitis D

3. A 2.5-month-old child with jaundice syndrome was diagnosed with acute viral hepatitis B (HbsAg+). The child was hospitalized. The child's mother is an HBsAg carrier. What is the mechanism of child infection?
A. Fecal-oral from mother
B. Contact-domestic from mother
C. During childbirth.
D. In utero from the mother
E. Through the mother's milk during feeding

4. A 1.5-year-old child who is being treated in an infectious disease hospital was diagnosed with acute viral hepatitis B (HbsAg+). After 7 days, the patient's condition worsened, and signs appeared that were precursors of the onset of hepatic coma. Which of the following biochemical indicators indicates the threat of developing hepatic coma?
A. Increase in transaminases ALT, ACT
B. Reduction of bilirubin
C. Increase in alkaline phosphatase
D. A decrease in the prothrombin index
E. Increase in bilirubin

5. In a 12-year-old patient with acute viral hepatitis B, the disease progresses with pronounced jaundice skin itching without signs of encephalopathy. The doctor defined this condition as severe cholestatic syndrome. What biochemical indicators characterize this syndrome?
A. Increase in direct bilirubin and alkaline phosphatase
B. Increase in indirect bilirubin and cholesterol
C. Increase in ALT and blood glucose
D. Increase in ACT and decrease in prothrombin index
E. Positive Paul-Bunnel reaction

6. A 6-year-old child has mild yellowness of the skin and sclera, decreased appetite, and lethargy. Jaundice was noted 2 days ago, during the examination, it was found the liver is 3 cm below the costal margin, slightly painful, and the spleen is at the level of the costal margin. I have not had hepatitis in the past. Six months ago, there was an operation for an open injury to the skull and tibia. Hemotransfusion was performed during the operation. What diseases can you think of?
A. Viral hepatitis A
B. Hemolytic anemia
C. Viral hepatitis E
D. Viral hepatitis B
E. Pseudotuberculosis, yellowish form

7. A 6-month-old child is in an infectious disease hospital with viral hepatitis B (HBsAg +). On the 10th day of stay, the child became lethargic, belched, and vomited periodically, jaundice increased, hemorrhagic rashes appeared on the skin, the liver decreased in size, and loose stools were noted 2 times. What explains the deterioration of the child's condition?
A. Joining of nosocomial acute intestinal infection
B. Joining nosocomial respiratory infection
C. Reaction to albumin administration
D. Reaction to interferon administration
E. Beginning of development of hepatic coma

8. A 3-month-old child is in an infectious disease hospital due to acute viral hepatitis B (HBsAg +). The child's condition worsened on the 6th day of stay, and signs of hepatic coma appeared. Which of the listed symptoms are characteristic of a hepatic coma of the first degree?
A. Vomiting, liquid stool up to 5 times with mucus, increased jaundice.
B. Anxiety, bloating, enlargement of the liver and spleen.
C. Anxiety, belching, and vomiting, increased jaundice, hemorrhages on the skin, and reduction of the liver.
D. Lethargy, belching, loose stools up to 5 times with mucus and streaks of blood, jaundice, and liver of former size
E. Anxiety, increased body temperature, vomiting, catarrhal phenomena.

Tasks:

1. A 3-month-old child was in an infectious disease hospital for a week due to viral hepatitis B, a severe course. On admission: bilirubin 98 μmol/l, ALT - 2.25 U/l, AST - 2.65 U/l, thymol test - 4 units. The liver protrudes from under the edge of the costal arch by 2.5 cm and the spleen by 1.5 cm. On the 8th day of the hospital stay, the child's condition deteriorated sharply. He refused to eat, he vomited twice, and the yellowish color of the skin and sclera increased. The liver protrudes from under the edge of the costal arch by 1.0 cm, the spleen + 1.0 cm. Bilirubin 218 μmol / l, ALT - 0, 95 U/l, AST - 1, 2 U/l, thymol test - 2 units, prothrombin index 60%.
1. Make a diagnosis based on symptoms.
2. What is the reason for the deterioration of the child's condition?
3. How do you explain "improvement in laboratory data"?
4. Assign intensive therapy to the child.
5. Conditions for discharge from the hospital

2. The child is 6 months old and is in the infectious department due to viral hepatitis B. On the 10th day of the illness, the child became lethargic, belched, and periodically vomited, jaundice developed, minor hemorrhagic rashes appeared on the skin, and the liver began to shrink in size. Body temperature is 38.5^0C.
1. What is the reason for the deterioration of the child's condition?
2. Explain the pathogenesis of the development of this condition
3. What additional studies should be prescribed?
4. Assign therapy to the child.
5. What anti-epidemic measures should be carried out in the cell?

3. A 6-month-old child was admitted to the hospital due to darkening of the urine and the appearance of a yellowish color of the sclera and skin. The liver protruded from under the edge of the costal arch by 3.5 cm. Laboratory examination revealed total bilirubin 92.8 μmol/l (direct - 72.5 mm /l, indirect - 20.3 mm /l), ALT - 1.90 U/l, AST - 2, 25 U/l, thymol test 8 units. HbsAg was detected in the blood. After 3 days, the child's condition worsened: he

became moody, restless, refused food, and vomited twice. Jaundice intensified, and the liver shrank to 1.5 cm. Laboratory data: total bilirubin - 198 μmol / l (direct - 128, 4, indirect - 70,2), ALT - 0, 85 U/l, AST - 1, 15 U/l, thymol test - 4 units, prothrombin index 65%.
1. Make a diagnosis.
2. What is the reason for the deterioration of the child's condition?
3. What are the necessary laboratory tests in this case?
4. Prescribe therapy
5. What anti-epidemic measures should be carried out in the cell?

4. Summing up:
- checking and discussing the answers of higher education applicants
- control of the level of professional skills and abilities
- evaluation of each answer, setting of grades
- answer to possible questions
- task for the next class

5. List of recommended literature

Basic:
1. Pediatric infectious diseases / S.O. Kramarev, Y.P. Kcharchenko et al., 2014. – K.: VSV "Medicine" – P. 240.
Additional:
1. Infections children's diseases./ Y.P. Kcharchenko, A. M. Mikhailova, S.O. Kramarev I.V., Yurchenko, A.A. Shapovalova, A. I. Savchuk.-Odessa medical State, 2008.-P. 168

2. Orders and instructions of the Ministry of Health of Ukraine "On the improvement of ambulatory polyclinic care for children in Ukraine", "On the improvement of the organization of medical care for adolescent children", protocols for the diagnosis and treatment of diseases in children in the specialties "Pediatrics", "Children's infectious diseases", etc. Ministry of Health of Ukraine.

Content module 3.
Practical Lesson No. 10, No. 11, No. 12

Topic 10. Differential diagnosis of influenza and acute respiratory viral infections in children.

Goal:
-Assessment (determination) of the level of formation of such components of particular competencies, such as the ability to interview and clinically examine a child, determine the necessary list of laboratory and instrumental studies, evaluate their results, establish a preliminary and clinical diagnosis, decide tactics and provide emergency medical care, determine principles and nature of treatment. Demonstration of medical manipulations used in children's infectious diseases.
-Learn the classification clinical variants of the course of influenza and SARS; learn methods of laboratory diagnostics; learn the principles of preventing and treating these diseases.
- To master the skills of taking an anamnesis, objectively examining patients, carrying out differential diagnosis of diseases, and learning the principles of therapy and preventive measures for influenza and SARS. To be able to clinically investigate the atypical course of influenza and SARS, to be able to detect complications of these diseases, and to provide emergency care for croup syndrome

Basic concepts:
- the main clinical symptoms of influenza and SARS
- symptoms of nonspecific reactions from the central nervous system during flu and SARS
- disease periods and clinical symptoms of SARS
- croup symptoms in children with SARS

Equipment:
-compendium
-clinical situational typical and atypical problems
- test tasks on the topic

Plan:
1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).

2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary).
- requirements for students' theoretical readiness to perform practical classes (knowledge requirements, list of didactic units);
- questions (test tasks, problems, clinical situations) to check basic knowledge of the lesson's subject.

Question:
1. What causative agents of acute respiratory viral infections do you know?
2. Why do children get SARS less often in the first year of life?
3. What importance is given to the local immunity of the upper respiratory tract in developing the disease?
4. In your opinion, is it necessary to prescribe antibiotics to a child with flu?
5. Ways of transmission of infection with SARS.
6. Is there a virus carrier in influenza and ARVI? The source of influenza in the epidemic period and the non-epidemic period.
7. From what age can a child get the flu and other SARS?
8. Is it possible to find a patient with influenza in the somatic department of the hospital? The period of contagiousness of a patient with influenza and ARVI.
9. Causes of mortality in influenza and ARVI.
10. To which syndromic groups can the symptoms of flu and ARVI be attributed?
11. Symptoms of catarrhal syndrome in SARS. Symptoms of neurotoxicosis syndrome in SARS. Symptoms of meningism in flu.
12. Differential diagnosis of various etiological forms of SARS.
13. Pathogenesis and symptoms of complications of influenza and SARS.
14. Peculiarities of the course of SARS in children of the first year of life.
15. Treatment measures for SARS and their complications.
16. Preventive measures for influenza and SARS.
17. Diagnosis and provision of emergency care for croup.

3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.):
- content of tasks (tasks, clinical situations, etc.);

Tasks:

1. The child is 3 months old. Hospitalized on the 4th day of illness. The child was born on time, with a weight of 3,400. In the first month of life, she was transferred to artificial feeding and had SARS otitis media. She became acutely ill, the temperature rose to 37.8°, cough and nasal congestion. On the 3rd day of the illness, she became restless, vomited, refused food and sleep disturbed. Objectively - the condition is complex, restless, heavy breathing, shortness of breath, cough, hyperemic pharynx, and cyanosis of the nasolabial triangle. Moist rales above the lungs on both sides. Tones of the heart are muffed, the stomach is soft. Liver +2 cm, stools are normal. The tibia does not protrude, it is not tense. Body weight 4,950 gr.
1. What is the diagnosis?
2. Assess the course of the disease.
3. What are the causes of complications that have arisen?
4. Prescribe treatment.

2. During the flu epidemic, 3 children fell ill in the nursery of the younger group. Clinical manifestations: temperature 37.6-38˚C, moderately pronounced runny nose, cough. The general condition of the children is slightly impaired. Appetite preserved, sleep is peaceful.
1. Make a preliminary diagnosis
2. What research should be conducted to establish the etiology of the outbreak?
3. What preventive measures should be carried out in the group?
4. Treatment of the patient with the specified manifestations.
5. What complications can occur with this disease?

3. The child is 6 months old. She got sick 2 days ago when her body temperature rose to 37.8˚C, and she became lethargic and moody. She ate badly. Nasal breathing is difficult. There were severe secretions from the nose coughing. Yesterday, the cough intensified, became rough, "barking", and voice hoarse. By the evening, the child's condition has worsened, he is very restless, has a fever of up to 39˚C, and refuses to eat. Breathing is complicated, with shortness of breath at rest up to 40 times per minute, all auxiliary muscles participate in breathing. Pale cyanosis around the mouth. Tachycardia. Hard breathing, "leading" wheezes are heard above the lungs. Internal organs without features.
1. Make a diagnosis and justify it.
2. What is the reason for the deterioration of the child's condition?
3. What help should be urgently provided to the child?
4. Carry out a differential diagnosis
5. Prescribe treatment.

- recommendations (instructions) for performing tasks (professional algorithms, orienting maps for the formation of practical skills and abilities, etc.);

№	Main tasks	Instructions	Answers
1	Characteristics of the causative agents of influenza and SARS. Epidemiology of infection	Characteristics of the pathogen, its properties, and stability in the environment. Peculiarities of epidemiology, source of infection, susceptibility, and ways of spreading.	
2	Pathogenesis and clinical variants of the course of infection	Entry gate, distribution in the body, tropism. Classification of clinical forms of diseases. Clinical symptoms of typical and atypical forms. Complications, pathogenesis of development, clinical symptoms.	
3	Laboratory data	Hematological data, urine and blood enzymes, analysis of cerebrospinal fluid, serological diagnosis, ECG, ultrasound, bacteriological and serological examination.	
4	Differential diagnosis	Differential diagnosis with other diseases.	

5	Treatment	Diet, regime, pathogenetic, symptomatic, etiotropic therapy. Indications for hospitalization. Conditions for organizing a hospital stay at home. Treatment of uncomplicated and complicated variants of the disease. Assistance with croup, algorithm of actions.	
6	Prevention	Carrying out anti-epidemic measures with a focus of infection. Term of isolation of patients, conditions of isolation.	

An indicative map of the patient's examination

Task	Instructions	Answers
1 Anamnesis	When he got sick, date. Complaints, onset of illness. History of life. Symptoms of the prodromal period. When the first symptoms appeared, date. The duration of the prodromal period.	
2 Epidanamnesis	Contact with the patient at school, kindergarten, and home. Was the child vaccinated, when, and how many times?	
3. Examination of the patient.	The severity of the condition. Characteristics of the main symptoms: 1. Time of appearance of symptoms from the onset of the disease. 2. The sequence of symptoms of the disease. 3. Localization of the process. 4. Number of rash elements (size, shape, color). 5. The order of disappearance of signs of the disease. 6. Presence of complications and their severity. State of respiratory organs and cardiovascular system. Symptoms from the nervous system. Palpation of the abdomen, liver, and spleen (size). Diuresis and defecation. The presence of meningeal signs. The presence of croup symptoms. The presence of non-specific reactions from the central nervous system.	
4 Laboratory and instrumental data	1. Hematological data. Biochemical data (bilirubin level, its fractions, transaminase level, thymol test) 2. Serological marker diagnostics (ELISA). PCR diagnosis. 3. Bacteriological studies. 4. ECG, X-ray, etc.	
5Differential diagnosis	Carry out a differential diagnosis of influenza and ARVI. Please pay attention to the period of the disease and its severity. Formulate a clinical diagnosis according to the classification.	

6 Treatment	Assign individual treatment to the patient (considering the presence of complications). Determine the indications for the organization of a hospital stay at home. Compile an algorithm of emergency care for croup at the pre-hospital and hospital stages.	
7 Prevention	Draw up a plan of anti-epidemic measures (concerning the patient and contacts)	

- Requirements for work results, including before registration: In case of independent preparation for the practical lesson, fill out the guide card for the practical lesson.

Applicants must observe academic integrity, namely:
• independent performance of all types of work, tasks, and forms of control provided for by the work program of this educational discipline;
• references to sources of information in the case of using ideas, developments, statements, information;
• compliance with the legislation on copyright and related rights;
• provision of reliable information about the results of one's own educational (scientific) activity using research methods and sources of information.

- Control materials for the final stage of the lesson: tasks, tests, etc. (if necessary).

Tests:

1. A 6-month-old child was hospitalized with complaints of difficulty breathing, a dry, rough cough, and cyanosis around the mouth. He fell ill the day before when, against the background of an increase in body temperature to 38.6^0C, signs of SARS appeared. Received antipyretics interferon. The doctor made a diagnosis: ARVI, acute stenosing laryngotracheitis. What symptoms are not characteristic of croup with the flu?
A. "Barking" cough
B. Feeling of lack of air
S. Difficult and prolonged breathing
D. Widespread cyanosis
E. Difficult exhalation

2. A 10-year-old patient complains of malaise, mucous secretions from the nose, swelling of the face eyelids, scleritis, and lacrimation. On examination: hyperemia of brackets and hypertrophy of follicles of the back wall of the pharynx, conjunctivitis with dense films. Body temperature is 39.5 ˚C. Your diagnosis?
A. Adenovirus infection
V. Hryp
S. Herpes
D. Paragrip
E. Enterovirus infection

3. Child 5 months, body temperature 37.8˚C, nasal congestion, sneezing, dry, persistent cough, expiratory shortness of breath. Acrocyanosis. Cyanosis of the nasolabial triangle. Slight hyperemia of the mucous membranes of the pharynx. Above the lungs - a lung sound with a boxy tone, auscultatively - abundant rales on both sides. On the R-gram of the lungs, there are signs of emphysema. Your diagnosis?
A. Respiratory - syncytial infection
V. Hryp
S. Paragrip
D. Adenovirus infection
E. Rhinovirus infection

4. A hospitalized 4-year-old child with a diagnosis of respiratory tract diphtheria (diphtheria croup), stenotic stage, laryngeal stenosis of the 1st degree. What drugs should be prescribed to the child first?
A. Intubation of the larynx
V. Administration of specific anti-diphtheria serum
C. Administration of cefotaxime
D. Emergency tracheotomy
E. Administration of hydrocortisone

5. A 3-year-old child had a sharp rise in body temperature to 38.4˚ C and appeared
symptoms of intoxication, abdominal pain, and frequent liquid stool without impurities. at

examination: the face is hyperemic, scleral injection, hyperemia of the mucous membrane
oropharynx Enlarged regional cervical lymph nodes, district doctor
suspected reovirus infection.
Where does the initial reproduction of the virus take place?
A. Epithelial cells of the nasopharynx
B. Lymphoid formations of the nasopharynx
C. Mesenteric lymph nodes
D. Epithelium and lymphoid formations of the nasopharynx and small intestine
E. Interstitial tissue of the respiratory system

6. A 6-year-old child was brought to the emergency department with complaints of
sharp pains in the navel and right iliac region, Shttkina-Blumberg syndrome, febrile fever, and vomiting. There is lethargy, headache, and difficulty in nasal breathing. The general blood analysis shows a slight increase in ESR, and the number of leukocytes is normal. In the anamnesis: contact with a patient with SARS. What pathology can be suspected?
A. Acute appendicitis
B. Primary peritonitis
C. Mesenteric lymphadenitis
D. Dysentery
E. Typhoid fever

7. A 1-year-1-month-old child was hospitalized with complaints of loud breathing, pulling in yielding areas of the chest, rough barking cough, and hoarse voice. The body temperature is 37.8°C, and the attack of difficulty breathing develops at night, during sleep. What disease should you think about?
A. Bronchial asthma
B. Foreign object of the respiratory tract
C. Obstructive bronchitis
D. Acute laryngotracheitis with stenosis
E. Diphtheria croup

8. The child is 8 months old and has been sick for 3 days. Fever in the 38.5-39.6°C range, difficult nasal breathing. Shortness of breath at rest, cyanosis of the nasolabial triangle. Objectively pale, eyelids are pasty, injection of scleral vessels, abundant mucous secretions from the nose, mucous membrane of the oropharynx (brackets, back wall of the pharynx) is hyperemic. Cervical lymph nodes are enlarged. Above the lungs, breathing is weakened in the posterior lower regions, there are crepitant wheezes. What complication did the child have?
A. Lymphadenitis
B. Bronchitis
C. Pneumonia
D. Myocarditis
E. Krup

Tasks:

1. A 3-month-old child was admitted to the hospital on the 4th day of illness. The girl was born full-term, weighed 3,400, and screamed immediately. From the 1st month, she was transferred to artificial nutrition and suffered SARS, otitis media. She became acutely ill, with a temperature of 37.8˚C, a cough, and a runny nose. On the 3rd day, she became restless, screamed, belched, and refused food. At night, the temperature was 39˚C, it was difficult to breathe, the cough increased, and she slept restlessly. During the examination, the condition was severe; the child was restless, moaning, breathing shortness, coughing, and having a runny nose. Hyperemia of the pharynx, cyanosis of the nasolabial triangle. In the lungs on both sides, small bubbling wet rales. The heart sounds are slightly muffled, the abdomen is soft and painless, and the liver is +2 cm. The stool is expected, the big head does not explode, and it is not tense. There is a painful reaction on the goatee (when pressed to the right) and an enlarged right behind the ear lymph node. Weight 4.900 (deficit 10%)
1. Make a clinical diagnosis and justify it.
2. Assess the course of the disease.
3. Specify the reasons for joining the complications.
4. Prescribe treatment.
5. Tactics of a doctor regarding vaccination of a child

2. A 6-year-old child was hospitalized on the 2nd day of illness. A week ago, the child's father had the flu. The boy started acutely; the temperature rose to 38.4^0C, and a headache and coughing appeared. The next day, the temperature was 40^0C, repeated vomiting, the patient lost consciousness, and short-term clonic-tonic convulsions were noted. When the child was admitted, he was excited, the convulsive syndrome did not recur, and the meningeal

symptoms were mild. The pharynx is moderately hyperemic, and there is hemorrhage granularity on the mucous membrane of the soft and hard palate. On the 3rd day of the illness, the meningeal symptoms disappeared, and the temperature dropped to 37.8^0C. By the 5th day, the condition improved, the temperature normalized, and the boy became active.
1. Make a diagnosis
2. What is the cause of the deterioration of the child's condition, the pathogenesis of the development of this condition
3. Schedule an examination
4. Prescribe treatment
5. Conditions for discharge from the hospital

3. A 5-year-old girl became acutely ill; the temperature rose to 39^0C, and mild catarrhal symptoms from the nasopharynx. On the 2nd day of illness, the condition worsened, severe headache, dizziness, repeated vomiting, and delirium occurred. Upon admission to the infectious disease hospital, the condition is severe; conscious, but lethargic, inhibited. Separate petechiae on the skin of the face. Nasal bleeding was noted once. Hyperemia and granularity in the throat. Frequent dry cough bothers. A positive Kernig symptom was detected. During a lumbar puncture, the liquid flowed out under pressure, it was transparent, the analysis of the cerebrospinal fluid showed no deviations from the norm.
1. Make a detailed clinical diagnosis
2. What is the genesis of the damage to the nervous system in this case
3. What diseases need to be differentiated
4. Principles of treatment
5. Conditions for the girl's discharge from the hospital

4. Summing up:
- checking and discussing the answers of higher education applicants
- control of the level of professional skills and abilities
- evaluation of each answer, setting of grades
- answer to possible questions
- task for the next class

5. List of recommended literature
Basic:
1. Pediatric infectious diseases / S.O. Kramarev, Y.P. Kcharchenko et al., 2014. – K.: VSV "Medicine" – P. 240.
Additional:
1. Infections children’s diseases./ Y.P. Kcharchenko, A. M. Mikhailova, S.O. Kramarev I.V., Yurchenko, A.A. Shapovalova, A. I. Savchuk.-Odessa medical State, 2008.-P. 168

2. Orders and instructions of the Ministry of Health of Ukraine "On the improvement of ambulatory polyclinic care for children in Ukraine", "On the improvement of the organization of medical care for adolescent children", protocols for the diagnosis and treatment of diseases in children in the specialties "Pediatrics", "Children's infectious diseases", etc. Ministry of Health of Ukraine.

Practical Lesson No. 11

Topic 11. Emergencies in children with flu and acute respiratory viral infections. Diagnostics. Treatment. Organization of "hospital at home" for infectious diseases in children.

Goal:

-Assessment (determination) of the level of formation of such components of particular competencies, such as the ability to interview and clinically examine a child, determine the necessary list of laboratory and instrumental studies, evaluate their results, establish a preliminary and clinical diagnosis, decide tactics and provide emergency medical care, determine principles and nature of treatment. Demonstration of medical manipulations used in children's infectious diseases.
-Know the clinical options for the course of children's infectious diseases; learn methods of laboratory diagnostics; understand the principles of prevention and treatment; know the prevention of these diseases; know the principles of organizing a hospital at home.
- Master the skills of differential diagnosis of diseases and organizing a hospital at home. Clinically investigate the atypical course of diseases and, in the event of complications, decide on the issue of hospitalization of patients.

Basic concepts:
- syndromes that are most often found in infectious diseases in children (exanthema, enanthema, tonsillitis, cough, polylymphadenopathy, diarrhea, jaundice)
- disease periods and clinical symptoms of children's infectious diseases
- pathognomonic symptoms in children's infectious diseases
- "patient at home"

Equipment:
-compendium
-clinical situational typical and atypical problems
- test tasks on the topic

Plan:

1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary).
- requirements for students' theoretical readiness to perform practical classes (knowledge requirements, list of didactic units);
-questions (test tasks, problems, clinical situations) to check basic knowledge of the lesson's subject.

Question:
1. Features of causative agents of measles, rubella, scarlet fever, chicken pox, infectious mononucleosis, epidemic parotitis, whooping cough and its properties, GKI, SARS.
2. Epidemiology of measles, rubella, scarlet fever, chicken pox, infectious mononucleosis, mumps infection, and whooping cough (source of infection, ways of transmission, susceptibility). What material is sent to the laboratory for virological and serological research?
3. Principles of bacteriological, virological research, principles of serological research
4. Peculiarities of pathogenesis, the minimum and maximum incubation period term.
5. The disease's main periods, characteristics, and duration.
6. Differential diagnosis of diseases.
7. Results of laboratory and instrumental research.
8. Classification of measles, rubella, chickenpox, scarlet fever, infectious mononucleosis, epidemic parotitis, and whooping cough by type, severity, and course. Classification of typical and atypical forms.
9. Peculiarities of the course in young children. Clinical symptoms.
10. Complications of diseases
11. Determination of indications for hospitalization of patients' conditions for organization of a hospital at home.
12. Prevention of measles, rubella, chicken pox, scarlet fever, infectious mononucleosis, epidemic parotitis, whooping cough

3. Formation of professional skills and abilities (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.):
-content of tasks (tasks, clinical situations, etc.);

Tasks:

1. On the 7th day of scarlet fever in a 3-year-old child, a temperature rise to 38.5˚C, intoxication phenomena (lethargy, decreased appetite, one-time vomiting), pain in the left ear, and enlargement and tenderness of the submandibular lymph nodes were noted.
There is no rash on the skin, but peeling is noted on the tips of the fingers. No abnormalities were found on the part of the internal organs. In the blood analysis: L-16.4 g/l, shift of leukocyte formula to the left, ESR-24 mm/h
1. Make a detailed clinical diagnosis and substantiate it.
2. What is the reason for the deterioration of the child's condition?
3. Assign treatment to the child.
4. When can the child be discharged from the hospital?
5. When can a child be admitted to school?

2. A 4-year-old child came in with complaints of an increase in body temperature up to 39.2˚C, paroxysmal abdominal pain, vomiting, and loose stools with mucus 3 times. I got sick yesterday, the day before I ate a salad of

fresh vegetables. During examination: The condition is moderate, lethargic, and complains of muscle pain. The temperature is 38.8˚C. The face is hyperemic and swollen. Swollen fingers, feet, hyperemia of the conjunctiva, and back wall of the pharynx. On the skin of the chest, abdomen, armpits, and inguinal region, there is a profuse rash with tiny spots. In the lungs, vesicular breathing, tachycardia, and muffled heart sounds. Palpation of the abdomen is painful in the epigastric, ileocecal region, the liver + 0.5 cm below the edge of the costal arch. He urinates enough, the stool is liquid 3 times. The general blood analysis showed leukocytosis, neutrophilia with rod-nuclear shift, accelerated ESR, and eosinophilia.
1. Make a preliminary diagnosis
2. Make a plan for examining the child
3. What diseases should be differentially diagnosed?
4. Prescribe treatment
5. Carry out anti-epidemic measures in the cell

3. Child K., 8, fell ill with epidemic parotitis (glandular form). Body temperature 38.8ºC, headache, decreased appetite, significant enlargement of parotid glands on both sides, more on the right.
1. Is it possible to treat a child at home? Why?
2. Which of the drugs should be prescribed to the child?

4. A 3-year-old child came to the clinic with the mother's complaints of an increase in body temperature to 39˚C, "snoring" breathing, and a sore throat in the child. Sick on the 3rd day. At first, nasal breathing became difficult, and snoring appeared at night. The temperature rose yesterday. During the examination, he breathes through his mouth, breathing is "snoring". Enlarged anterior cervical and posterior cervical lymph nodes, 2 x 2 cm, elastic, moderately painful, in other groups - 0.5 x 0.5 cm. Hyperemia in the throat, swollen tonsils with a yellowish coating that is easily removed. Liver +3 cm, spleen +1 cm. There are no other changes.
1. Establish a preliminary diagnosis.
2. Assign additional laboratory tests.
3. Carry out a differential diagnosis.
4. Prescribe treatment.
5. Carry out anti-epidemic measures in the cell

- recommendations (instructions) for performing tasks (professional algorithms, orienting maps for the formation of practical skills and abilities, etc.);

№	Main tasks	Instructions	Answers
1	Characteristics of causative agents of measles, rubella, chicken pox, scarlet fever, infectious mononucleosis, mumps infection, whooping cough, AII, SARS. Epidemiology of infection.	Characteristics of the pathogen, its properties, and stability in the environment. Peculiarities of epidemiology, source of infection, susceptibility, and ways of spreading.	
2	Pathogenesis and clinical variants of the course of infection	Entry gate, distribution in the body, tropism. Classification of clinical forms of diseases. Clinical symptoms of typical and atypical forms. Complications, pathogenesis of development, clinical symptoms.	
3	Laboratory data	Hematological data, urine and blood enzymes, analysis of cerebrospinal fluid, serological diagnosis, ECG, ultrasound, bacteriological and serological examination.	
4	Differential diagnosis	Differential diagnosis with other diseases accompanied by the syndrome of exanthema, sore throat, and diarrhea.	

		Differential diagnosis of infections.	
5	Treatment	Diet, regime, pathogenetic, symptomatic, etiotropic therapy. Indications for hospitalization. Conditions for organizing a hospital stay at home. Treatment of uncomplicated and complicated variants of the disease.	
6	Prevention	Carrying out anti-epidemic measures with a focus of infection. Term of isolation of patients, conditions of isolation.	

An indicative map of the patient's examination

Task	Instructions	Answers
1 Anamnesis	When he got sick, date. Symptoms of the prodromal period. The duration of the prodromal period. Presence of sore throat, diarrheal syndrome, lesions of glands, joints, heart. When attacks of spasmodic cough, etc. appeared	
2 Epidanamnesis	Contact with the patient at school, kindergarten, and home. Was the child vaccinated, when, and how many times?	
3. Examination of the patient.	The severity of the condition. Characteristics of the rash: - The time of appearance of the rash from the onset of the disease. - The sequence of distribution of rash elements on the body's surface. -Localization. -Number of elements (size, shape, color). -The order of disappearance. -The condition of the respiratory system and the cardiovascular system. - How many attacks of spasmodic cough per day, number of repetitions in an attack, apnea. - Palpation of the abdomen, liver, spleen (size). Palpation of salivary glands, pancreas. -Diuresis and defecation. The presence of meningeal signs. The presence of symptoms of arthritis. Presence of complications (myocarditis, nephritis, arthritis).	
4 Laboratory and instrumental data	1. Hematological data. Biochemical data (bilirubin level, its fractions, transaminase level, thymol test) 2. Serological marker diagnostics (ELISA). PCR diagnosis. 3. Bacteriological studies. 4. ECG, X-ray, etc.	
5Differential diagnosis	Carry out a differential diagnosis between diseases with exanthems, angina, AII, and SARS. Pay attention to the stages of the disease.	

	Formulate a clinical diagnosis according to the classification.	
6 Treatment	Assign individual treatment to the patient (considering the presence of complications). Determine the indications for the organization of a hospital stay-at-home.	
7 Prevention	Draw up a plan of anti-epidemic measures (concerning the patient and contacts)	

- Requirements for work results, including before registration: In case of independent preparation for the practical lesson, fill out the guide card for the practical lesson.

Applicants must observe academic integrity, namely:
• independent performance of all types of work, tasks, and forms of control provided for by the work program of this educational discipline;
• references to sources of information in the case of using ideas, developments, statements, information;
• compliance with the legislation on copyright and related rights;
• provision of reliable information about the results of one's own educational (scientific) activity using research methods and sources of information.

- Control materials for the final stage of the lesson: tasks, tests, etc. (if necessary).

1. A 4-year-old child was admitted to the hospital on the 3rd day of illness with a diagnosis of chicken pox, mild course, without complications. The following should be used in treatment except:
A. Bed mode
B. Treatment of rash elements with solutions of aniline dyes
C. Antibacterial therapy
D. Multivitamins
E. Strict hygienic regimen

2. In a 3-year-old child who was in contact with a herpes zoster patient, the body temperature rose to 37.5^0C on the 11th day, the child was lethargic, and the appetite was reduced. A few hours later, a maculopapular rash appeared on the body's and limbs' skin. The district doctor diagnosed chickenpox.
What is the form of chicken pox in a child?
A. Typical form, easy course
B. A rudimentary form
C. Pustular form
D. Abortive form
E. Bullous form

3. A 5-year-old child was admitted with complaints of large-plate skin peeling on the palms. A week ago, the child had an increase in body temperature, a sore throat, and one-time vomiting. They did not consult a doctor. For 3 days, the child received ampicillin, diphenhydramine, and panadol. During the child's examination, the doctor found sweating, pigmentation of the skin on the elbow bends, and axillary folds.
What is your diagnosis?
A. Diphtheria
B. Kir
C. Pseudotuberculosis
D. Scarlet fever
E. Krasnukha

4. A 7-year-old child became acutely ill, temperature increased to -38.5°C, and complaints of headache, general weakness, and sore throat when swallowing. Rash on the skin. On examination, there is sharply limited hyperemia of the tonsils, tongue, soft palate, and follicular tonsillitis. Enlarged and painful submandibular lymph nodes. The skin is hyperemic, and a shallow-spotted rash prevails in the area of elbow bends, on the lateral surfaces of the abdomen, and the axillary folds. The pronounced pallor of the nasolabial triangle.
Your clinical diagnosis?
A. Infectious mononucleosis

B. Diphtheria
C. Kir
D. Scarlet fever
E. Allergic rash

5. A 6-year-old child suffering from a food allergy had an increase in body temperature up to 39°C, a headache, pain when swallowing, and one-time vomiting. On the 2nd day of the illness, the doctor found bright hyperemia of the tonsils, a white plaque on the cavities, and a small-dotted rash on a hyperemic background of the skin. Before the doctor's arrival, the mother treated the child with Analgin and ampicillin.
What should you think about it?
A. Diphtheria
B. Infectious mononucleosis
C. Lacunar angina, allergic rash
D. Scarlet fever
E. Pseudotuberculosis

6. A 7-year-old child fell ill suddenly: body temperature rose, headache, sore throat when swallowing, and vomited twice. After 3 hours, a slight red rash appeared in the inguinal and inguinal areas on a hypermyotrophic background. The mucous membrane of the oropharynx is hyperemic, with gray plaques on the tonsils enlarged and painful submandibular lymph nodes.
Your diagnosis?
A. Cyrus
B. Diphtheria
C. Infectious mononucleosis
D. Enterovirus infection
E. Scarlet fever

7. A 12-year-old child suffered scarlet fever 2.5 weeks ago. Today, body temperature rose, back pain, hematuria, and proteinuria appeared in the urine. Glomerulonephritis is suspected.
The reason for the probable complication?
A. Toxic factor
B. Bacterial (streptococcus)
C. Immune
D. Joining another infection
E. Toxic and infectious

8. A 14-year-old patient was hospitalized on the 5th day of illness with complaints of icterus of the skin and mucous membranes, a scarlet fever rash, positive symptoms of "gloves", "socks", "hood", and frequent loose stools. What disease can you think of?

A. Viral hepatitis A
B. Infectious mononucleosis
C. Leptospirosis
D. Tularemia
E. Pseudotuberculosis

9. A 6-year-old child complains of increased body temperature of up to 40°C, nausea, and pain in the stomach joints (knee, ankle). Sick for 6 days. Objectively, during the examination - the face, feet, and hands hyperemia. Moderate hyperemia of the oropharyngeal mucosa. Breathing is hard in the lungs. Defecation 4 times a day. What research should be done?

A. Vidal reaction
B. RPGA with pseudotuberculosis diagnostics
C. Rheumatic tests
D. General analysis of blood and urine
E. Biochemical analysis of blood

10. A maculopapular rash on a normal skin background, the stages of its appearance, the tendency to merge, and the staged development of pigmentation are typical for:

A. Enterovirus infection
B. Scarlet fever
C. Kir
D. Krasnukha
E. Pseudotuberculosis

Tasks:

1. A 4-year-old child was admitted to the clinic with complaints of an increase in body temperature to 39˚C, a sore throat, an increase in posterior cervical lymph nodes, and a rash on the body. According to his mother, he has been ill for the 5th day. The disease began with difficulty breathing through the nose, snoring at night, and a temperature of 37˚C. The district doctor prescribed Ampicillin. During the following days, the condition did not improve, the fever reached 37.5-38°C. Yesterday, a sore throat and a rash appeared on the body. On examination: a maculopapular rash on the skin of the trunk and limbs, hyperemic pharynx, enlarged, hypertrophied tonsils, purulent plaques in lacunae. Posterior cervical, submandibular lymph nodes 2x3 cm, painful. In other groups, lymph nodes are 0.5x1 cm. Liver +2 cm, spleen +1.5 cm

1. Make a preliminary diagnosis.
2. Assign additional laboratory tests.
3. Carry out a differential diagnosis.
4. Assign treatment to the child.
5. Carry out anti-epidemic measures in the cell

2. A 7-year-old child was brought to the hospital from an orphanage with a diagnosis of measles.
Sick on the 3rd day. The temperature is 38˚C, and the face is pale pasty. A maculopapular rash appeared yesterday on the skin of the body and limbs. Posterior cervical lymph nodes 3x2 cm, painful, mobile. In other groups, they are enlarged to 1x0.5 cm. Hyperemia of the mucous membrane of the oropharynx is noted, and the tonsils are hypertrophied. Liver +3 cm, spleen +2 cm. No other changes were detected.
1. Make a presumptive diagnosis.
2. Assign a plan of necessary research.
3. Carry out a differential diagnosis.
4. Assign treatment to the child.
5. Carry out anti-epidemic measures in the cell

3. A 4-year-old child fell ill 4 days ago. All days, body temperature is 37.5-38˚C, dry cough. A rash appeared today. The parents called the district doctor. Objectively: temperature 37.8˚C, frequent dry cough, conjunctivitis, photophobia. The mucous membrane of the oropharynx is markedly hyperemic. On the mucous membrane opposite the large molars, there is hyperemia and drop-like white plaques that cannot be removed with a spatula. The face and eyelids are more swollen, and on the face and behind the ears, there is a spotted papular rash on the unchanged background of the skin. Separate elements of the rash are visible on the upper part of the body. Hard breathing is heard over the lungs without wheezing. There is no other pathology.
1. Make a detailed clinical diagnosis.
2. Carry out a differential diagnosis.
3. Make a plan for laboratory examination
4. Treatment plan for this patient
5. What methods of prevention of this disease do you know

4. A 2-year-old child became acutely ill. The temperature rose to 38˚C in the evening, and a slight cough and runny nose appeared. On the morning of the following day, the mother discovered a rash. The district doctor found a tiny runny nose, and the mucous membrane of the oropharynx is hyperemia. Enanthema on the soft palate. The mucous membrane of the cheek is clean. A rash on all body parts except the palms and feet. Posterior cervical occipital lymph nodes are enlarged, dense, and painful. Internal organs without features. The child's mother is 14 weeks pregnant.
1. Make a preliminary diagnosis.
2. What laboratory tests should be performed on the mother and the child?
3. Assign treatment to the child.
4. The doctor's tactics concerning the child's mother.

5. Name the methods of prevention of this infectious disease.

5. A child who fell ill with lacunar angina returned to the middle group of the nursery school. 10 days after his return, he developed lamellar scaling on his hands and feet.
1. What disease did the child suffer from?
2. What tactics should the doctor take concerning this child?
3. What treatment should be prescribed to the child?
4. What complications are possible with this disease?
5. What will be the anti-epidemic measures in nurseries?

6. A 5-year-old child attending kindergarten became acutely ill: the body temperature rose to 39˚C, repeated vomiting, and sore throat. She received paracetamol warm milk with honey. The following day, the temperature is 38.5˚C, the cheeks are flushed, the nasolabial triangle is pale, and the skin of the trunk and limbs (mainly on the flexural surfaces) has an abundant small-droplet rash. In the throat, bright hyperemia of the tonsils brackets. Grayish overlays in the lacunae of both tonsils. Enlarged and painful tonsillar lymph nodes. No changes were detected in other organs.
1. Make a clinical diagnosis.
2. Carry out a differential diagnosis.
3. Schedule an examination for the child. What changes would you expect to see in a general blood count?
4. What are the possible complications of this disease?
5. Prescribe therapy.

4. Summing up:
- checking and discussing the answers of higher education applicants
- control of the level of professional skills and abilities
- evaluation of each answer, setting of grades
- answer to possible questions
- task for the next class

5. List of recommended literature

Basic:
1. Pediatric infectious diseases / S.O. Kramarev, Y.P. Kcharchenko et al., 2014. – K.: VSV "Medicine" – P. 240.
Additional:
1. Infections children’s diseases./ Y.P. Kcharchenko, A. M. Mikhailova, S.O. Kramarev I.V., Yurchenko, A.A. Shapovalova, A. I. Savchuk.-Odessa medical State, 2008.-P. 168

2. Orders and instructions of the Ministry of Health of Ukraine "On the improvement of ambulatory polyclinic care for children in Ukraine", "On the improvement of the organization of medical care for adolescent children", protocols for the diagnosis and treatment of diseases in children in the specialties "Pediatrics", "Children's infectious diseases", etc. Ministry of Health of Ukraine.

Practical Lesson No. 12

Topic 12. Immunoprevention of infectious diseases in children. Diagnosis of postvaccination reactions and complications in children.

Goal:
-To learn modern knowledge about specific prevention, its importance, and the possibility of use in managed infections; know the characteristics of the main current vaccine preparations.
- Master the skills of compiling a calendar of preventive vaccinations.
- Master the principles of organizing vaccinations in children to determine indications and contraindications for vaccination.
- Be able to clinically examine the course of the vaccine process: complications of immunization, their clinic, treatment, and prevention, and provide emergency care for complications during immunization

Basic concepts:
- specific and non-specific prevention of infectious diseases in children
-vaccines, their types
- anaphylactic shock
- indications and contraindications for vaccination

Equipment:
-compendium
-clinical situational typical and atypical problems
- test tasks on the topic

Plan:

1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary).
-requirements for students' theoretical readiness to perform practical classes (knowledge requirements, list of didactic units);
- questions (test tasks, problems, clinical situations) to check basic knowledge of the lesson's subject.

Question:
1. Who developed the doctrine of the epidemic process?
2. What three links to the epidemic process do you know?
3. What types of immunity do you know?
4. What does the term of isolation of a sick child depend on?
5. What infectious diseases are children vaccinated against?
6. What is the prevention of infectious diseases?
7. The concept of specific and non-specific prevention of infectious diseases.
8. Non-specific prevention, its importance, and its influence on the main links of the epidemic process.
9. Specific prevention, importance, and possible use in managed infections.
10. Modern calendar of preventive vaccinations.
11. Organization of preventive vaccinations.
12. Indications and contraindications for preventive vaccinations.
13. Characteristics of the course of the vaccine process. Complications of active immunization, their treatment, and prevention. Emergency aid in case of anaphylactic shock.
14. Specific passive prevention indications.

3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.):
-content of tasks (tasks, clinical situations, etc.);

Tasks:
1. A 7-year-old child fell ill 4 days ago. Fever up to 38˚C, dry cough. A rash appeared today. The parents called a doctor. Objectively, the temperature is 37.8˚C. Frequent dry cough. Conjunctivitis, photophobia. The throat is hyperemic, there is hyperemia on the mucous membrane of the cheeks in front of the large root teeth, dotted white plaques that cannot be removed with a spatula.

The face is puffy, the whores are swollen, and on the face and behind the ears, there is a spotted-papular rash on the unchanged background of the skin. Separate elements of the rash are on the upper part of the body. Hard breathing is heard above the lungs, and there is no wheezing.
1. Make a detailed clinical diagnosis.
2. Carry out the difference. diagnosis
3. Make a plan for laboratory examination
4. Treatment plan for this patient
5. What preventive measures do you know about this disease

2. A 1-year-old child fell ill 2 days ago. There was a runny nose, decreased appetite, and temperature of 37.3-37.5˚C. There is no cough. It is known that 17 days later, she was in contact with a measles patient and received 1.5 ml of gammaglobulin. During the examination on the 3rd day of the illness, the temperature is 37.2˚C, active. There is mild conjunctivitis, moderate hyperemia of the pharynx, and speckled enanthema on the soft palate. There is a slight papular rash on the face and trunk. No other deviations were found.
1. Your previous diagnosis?
2. What are the features of the course of this form of the disease?
3. Should the patient be isolated?
4. What treatment should be prescribed?
5. Should the child be vaccinated against measles?

3. A 6-year-old child was transferred to an infectious disease hospital with a regional illness on the 4th day with a diagnosis: diphtheria of the tonsils, localized form, isolated diphtheria bacillus type gravis. Correctly vaccinated against diphtheria. On examination, the pharynx is moderately hyperemic, the tonsils are loose, and there are no plaques. The temperature is normal. The condition is satisfactory. It is known that on the 1st day of the illness, there were point plaques on the tonsils. Attends kindergarten.
1. Make a preliminary diagnosis.
2. Make a plan for laboratory examination.
3. Prescribe treatment.
4. What vaccinations did the child receive against diphtheria?
5. Plan of anti-epidemic measures.

- recommendations (instructions) for performing tasks (professional algorithms, orienting maps for the formation of practical skills and abilities, etc.);

№	Main tasks	Instructions	Answers
1	The main types of human conditions that are contraindications to vaccination	Give examples of diseases.	
2	Classification of contraindications	Absolute, relative, temporary, permanent, general, individual	
3	List of medical contraindications to preventive vaccinations	Hematological data, urine, and blood tests, analysis of cerebrospinal fluid, serological diagnosis, ECG, EEG, convulsions	
4	Unjustified reasons for withdrawals and untimely vaccination	PPCNS, allergy, anemia, prematurity, jaundice of newborns, dysbacteriosis	
5	Classification of complications that occur during vaccination	Complications are local and general. Assisting in case of anaphylactic shock, an algorithm of actions.	
6	Prevention of incidence of infectious diseases	Carrying out anti-epidemic measures with a focus of infection. Term of isolation of patients, conditions of	

		isolation.	

An indicative map of the patient's examination

Task	Instructions	Answers
1 Anamnesis	When he got sick, date. Complaints, onset of illness. History of life. Symptoms of the prodromal period. When the first symptoms appeared, date. The duration of the prodromal period.	
2 Epidanamnesis	Contact with the patient at school, kindergarten, and home. Has the child been vaccinated according to the current vaccination calendar? Did she have any contraindications to vaccination?	
3. Examination of the patient.	The severity of the condition. Characteristics of the main symptoms: 1. Time of appearance of symptoms from the onset of the disease. 2. The sequence of symptoms of the disease. 3. Localization of the process. 4. Number of rash elements (size, shape, color). 5. The order of disappearance of signs of the disease. 6. Presence of complications and their severity. State of respiratory organs and cardiovascular system. Symptoms from the nervous system. Palpation of the abdomen, liver, and spleen (size). Diuresis and defecation. The presence of meningeal signs. The presence of croup symptoms. The presence of non-specific reactions from the central nervous system.	
4 Laboratory and instrumental data	1. Hematological data. Biochemical data (bilirubin level, its fractions, transaminase level, thymol test) 2. Serological marker diagnostics (ELISA). PCR diagnosis. 3. Bacteriological studies. 4. ECG, X-ray, etc.	
5Differential diagnosis	Carry out a differential diagnosis of the disease. Please pay attention to the period of the disease and its severity. Formulate a clinical diagnosis according to the classification.	
6 Treatment	Assign individual treatment to the patient (considering the presence of complications). Compile an emergency aid algorithm for anaphylactic shock at the hospital stage.	
7 Prevention	Draw up a plan of anti-epidemic measures (concerning the patient and contacts). Make a calendar for the child's next vaccination, considering all indications and contraindications.	

- Requirements for work results, including before registration: In case of independent preparation for the practical lesson, fill out the guide card for the practical lesson.

Applicants must observe academic integrity, namely:
• independent performance of all types of work, tasks, and forms of control provided for by the work program of this educational discipline;
• references to sources of information in the case of using ideas, developments, statements, information;
• compliance with the legislation on copyright and related rights;
• provision of reliable information about the results of one's own educational (scientific) activity using research methods and sources of information.

- Control materials for the final stage of the lesson: tasks, tests, etc. (if necessary).

Tests:
1. 2 hours after the administration of the DPT vaccine to a 4-month-old child, his temperature rose to 38.3˚C, anxiety appeared. What should be the doctor's tactics when examining this patient at 5 months?
A. Postpone pertussis vaccination and administer tetanus and diphtheria toxoids
B. Postpone pertussis vaccination and administer diphtheria and tetanus toxoids in a small dose (DT-m)
C. Administer half the usual dose of the DPT vaccine
D. Postpone vaccination for up to 12 months. age
E. Administer the DPT vaccine, recommending preventive treatment to prevent hyperthermia.

2. On the 10th day after vaccination with the DPT vaccine, the child's body temperature rose to 37.5˚C, cough, and runny nose appeared. Most likely, it can be considered as:
A. Normal during the post-vaccination process
B. Violation of the vaccine administration procedure
C. Complications of vaccine administration
D. The beginning of a respiratory infection
E. Reaction to the pertussis component of the DPT vaccine

3. At 13 months, a child was vaccinated against mumps. Reactions to mumps vaccine administration do not include the following:
A. Increase in body temperature, minor catarrhal phenomena on the 3-4th day after vaccination
B. Increase in body temperature on the 8-10th day after vaccination
C. Mild catarrhal phenomena on the 7th day after vaccination
D. Slight increase in salivary glands
E. Serous meningitis that occurred in a child on the 16th day after vaccination

4. A hospitalized 9-month-old child with a diagnosis of measles on the first day of the appearance of the rash. His brother, who is 4 years old, did not suffer from measles and was not vaccinated against this disease due to absolute contraindications. Which of the following methods can prevent measles in this child?
A. Gamma globulin prophylaxis
B. Vaccination
C. Antibiotics
D. Chemical preparations
E. Phagoprophylaxis

5. Child 12 months. Life healthy, prepared for vaccination against measles and epidemic mumps. Due to the lack of measles vaccine, the child was vaccinated only against mumps.
When can a child be vaccinated against measles?
A. after 1 month
B. in 2 months
C. after 5 months
D. in 12 months
E. in 2 weeks

6. A 4-year-old child was hospitalized for clinical and epidemic reasons indications for hospitalization with a diagnosis of epidemic parotitis. Child from children's home How many days should a child be isolated?
A. From the 5th day after the onset of the disease, stop the isolation
B. Up to 9 days from the onset of the disease
C. Before the disappearance of clinical symptoms
D. Up to 2 negative cultures from the nasopharynx

E. Up to 22 days from the onset of the disease

Tasks:

1. A 3-month-old child was admitted to the hospital on the 4th day of illness. The girl was born full-term, weighed 3,400, and screamed immediately. From the 1st month, she was transferred to artificial nutrition and suffered SARS, otitis media. She became acutely ill, with a temperature of 37.8˚C, a cough, and a runny nose. On the 3rd day, she became restless, screamed, belched, and refused food. At night, the temperature was 39˚C, it was difficult to breathe, the cough increased, and she slept restlessly. During the examination, the condition was severe; the child was restless, moaning, breathing shortness, coughing, and having a runny nose. Hyperemia of the pharynx, cyanosis of the nasolabial triangle. In the lungs on both sides, small bubbling wet rales. The heart sounds are slightly muffled, the abdomen is soft and painless, and the liver is +2 cm. The stool is normal, the big head does not explode, and it is not tense. A painful reaction on the goatee (when pressed to the right) and an enlarged right behind the ear lymph node. Weight 4.900 (deficit 10%)
1. Make a clinical diagnosis, confirm it.
2. Assess the course of the disease.
3. Specify the reasons for joining the complications.
4. Prescribe treatment.
5. Tactics of a doctor regarding vaccination of a child

2. A 2-year-old child was acutely ill. In the evening, the temperature rose to 38^0C, a slight cough, runny nose appeared. By the next morning, the mother had discovered a rash. The district doctor found: minor rhinitis, hyperemia of the pharynx. Enanthem In the soft sky. The mucous membrane of the cheek is clean. A rash on all parts of the body, except for the palms and feet. Posterior, occipital lymph nodes are enlarged, dense, painful. From internal organs without features. The child's mother is 14 weeks pregnant.
1. Make a preliminary diagnosis.
2. What laboratory tests should be carried out for the mother and the child.
3. Assign treatment to the child.
4. Tactics of the doctor in relation to the child's mother.
5. Name the methods of prevention of this infectious disease.

3. A 6-year-old child was transferred to an infectious disease hospital with a regional illness on the 4th day with a diagnosis: diphtheria of the tonsils, localized form, isolated diphtheria bacillus type gravis. Correctly vaccinated against diphtheria. On examination: the pharynx is moderately hyperemic, the tonsils are loose, there are no plaques. The temperature is normal. The condition is satisfactory. It is known directly that on the 1st day of the illness there were point plaques on the tonsils. Attends kindergarten.
1. Make a preliminary diagnosis.
2. Make a plan for laboratory examination.
3. Prescribe treatment.
4. What vaccinations did the child receive against diphtheria.
5. Plan of anti-epidemic measures.

4. Summing up:
- checking and discussing the answers of higher education applicants
- control of the level of professional skills and abilities
- evaluation of each answer, setting of grades
- answer to possible questions
- task for the next class

5.List of recommended literature
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