**ASSESSMENT FUND**

**FOR CURRENT PROGRESS MONITORING AND MIDTERM CERTIFICATION OF STUDENTS STUDYING ON DISCIPLINE**

**Infectious diseases**

**Characteristics of monitoring forms**

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| **Monitoring form** | **Characteristics** |
| **Report** | A report is a public announcement or document that contains information and reflects the essence of the issue or research in relation to a given situation. It can be written or oral. An oral presentation can be accompanied by a multimedia presentation or demonstration of any visual (material) objects.  Report allows you to assess the level of student`s theoretical knowledge on a given question, as well as to check the skills of analysis, synthesis, generalization and concretization, used by students while preparing a report. |
| **Control of assignments in the workbook** | Control tasks in the workbook are aimed at identifying and comparing at a particular stage of learning the results of students' educational activities with the requirements set by the content of the discipline being studied. It can be used in IS OrSMU if the workbook with methodological instructions is placed in the work program of the discipline and students have the opportunity to complete tasks by filling out the notebook and sending it to the teacher for checking. It allows you to check and evaluate the knowledge of students, to determine the degree of their readiness for further education, as well as the skills level, if the tasks are of a practice-oriented nature. |
| **Test** | A test is one of the forms of written verification and assessment of the acquired knowledge, the level of independence and activity of students in educational activities. They can be carried out in the classroom and in the form of homework, current and final, graphic, practical, frontal (for all) and individual. Traditionally, the test involves the identification of knowledge on a specific topic (section), as well as an understanding of the essence of the studied phenomena, objects, their patterns (for example, assignments for comparison, insertion of missing words, etc.). To assess the skills of students primarily graphical and practical tests are used. The graphical test is aimed at identifying the ability of students to draw up a generalized visual model that reflects certain relationships, relationships in an object or in their totality. These can be graphics, pictures, drawings, diagrams, tables. Practical tests are carried out to identify the abilities and skills of students to carry out certain research, laboratory experiments, make measurements, perform appropriate operations and manipulations in educational and industrial conditions. One of the forms of testing practical skills and abilities is a control practical exercise lesson (in physics, chemistry, biology, anatomy, physiology, surgery, etc.), usually held at the end of the study of the topic or section of the discipline. |
| **Written questionnaire** | A written questionnaire is a type of written assessment of students' knowledge on certain questions or topics. It can be current and final, individual and frontal. It involves posing a number of questions to students, to which they give a detailed written answer. It allows you to assess the knowledge of students on the passed topic (or module) of the discipline. |
| **Presentation** | A presentation (computer presentation) is a demonstration in a visual form of the main provisions of the oral presentation, the degree of mastering the content of the problem. It allows you to assess the level of students` knowledge on a given question (topic, section), as well as to check their skills of analysis, synthesis, generalization and concretization, information and communication skills used by students in the process of preparing a presentation. |
| **Abstract** | Abstract is a summary, in writing or in the form of a public speech, of the content of a book, scientific work, and the results of studying a scientific problem, a report on a specific topic, including a review of relevant literary and other sources. As a rule, it is an independent student's work on revealing the essence of the problem under study, presenting various points of view and their own views on it. The defense of the abstract can be accompanied by a presentation. Since the main purpose of the essay is scientific and informational, this form of control is aimed mainly at assessing the knowledge of students on a specific topic (issue), although it allows us to identify the level of formation of the skills of analysis, synthesis, generalization and concretization used by the student in the process of preparing a report. |
| **Case-task completion** | Case-tasks are technology for teaching students. The students are given a set of educational material (case) and, as a result of acquaintance with it, they ought to comprehend the essence of the problem, which, as a rule, does not have an unambiguous solution, and offer their solution using the acquired knowledge and skills. It is widely used in practical classes in a foreign language, management, law, economics and other disciplines. In medicine, it can be used to teach students to write a medical history. It allows to evaluate, first of all, the students' skills to apply the acquired knowledge when solving specific practical situations. Knowledge assessment is present at the stage of collecting material for a case-task. |
| **Terminological dictation** | Terminological dictation is a type of students` written work to consolidate and test knowledge on a specific topic (issue). It can be checking or repetitive. The first is aimed at controlling knowledge, the second one is aimed at training students in the use of certain terms. It allows you to assess the students` knowledge. In this case, it should be used only if students have clear instructions on which terms are to be memorized. Otherwise, the student will write the term that he has learned from the literature he has. |
| **Testing** | Testing is a written way of testing students' knowledge. It can be current and final (by Module or discipline as a whole). Test items can include questions with one or more correct answers, assignments for matching and sequencing, as well as problem-situation tasks that require the selection of the correct (or several correct) answer options, as well as graphic images that require interpretation or definition. In most cases, testing is aimed at assessing students' knowledge. It allows to assess the students' skills when the test tasks are presented by problem-situational tasks, tasks with graphic (visual) images that require the use of a solution algorithm (action with an object). |
| **Recitation** | Recitation is a method of testing the knowledge and skills of students, which consists in the fact that students are invited to reproduce a certain content: empirical facts, theoretical positions, formulations of concepts, examples, classifications, scientific laws. It allows you to assess the level of knowledge of students on a particular issue, topic, section, discipline. Assessment of the students' skills is possible if, in the course of answering the question posed, the student needs to demonstrate the acquired knowledge in order to solve a problem question or problem-situational task. |
| **Practical task completion monitoring** | A practical task is a task that contains exercises and tasks that the student must solve (complete) visually (effectively), i.e. practically manipulating real objects or their substitutes. It is widely used in mathematics, computer science, physics, chemistry, economics, and other natural science disciplines. In medicine, it can be represented by the student performing direct practical manipulations with the "patient" both in the course of practical training and directly at the bases of practical training. It allows you to assess the ability of students to apply theoretical knowledge to solve (perform) a practical task in both standard and non-standard situations. |
| **Checking case histories** | A case history is an accounting and operational document drawn up for each patient in a medical and preventive treatment institution, designed to register information about the diagnosis, course and outcome of the disease, as well as diagnostic and medical-preventive activities taken during the patient's stay in the hospital. It allows you to assess the student's ability to apply the theoretical knowledge gained in direct professional learning situations (so-called contextual learning). |
| **Solving problem-situational tasks** | Problem-situational tasks are a kind of practical task that involves solving an issue in a certain situation. Both the question and the situation itself can be problematic. In most cases, problem-situational tasks have a professional focus. They allow assessing the ability of students to apply the obtained theoretical knowledge in various situations. |
| **Practical skills testing** | Testing of practical skills can be used to control the students' practical actions (medical manipulations) with the "patient". It allows you to assess the skills and abilities of students to apply the theoretical knowledge (about certain actions and manipulations) in standard and non-standard situations. |

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| **Monitoring form** | **Assessment criteria** |
| **Recitation** | On "FIVE POINTS" the answer is assessed, which shows solid knowledge of the main questions of the studied material, is distinguished by the depth and completeness of the disclosure of the topic; knowledge of the terminological apparatus; the ability to explain the essence of phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples; fluency in monologue speech, consistency and consistency of the answer. |
| On "FOUR POINTS" the answer is assessed, which reveals a solid knowledge of the basic questions of the studied material, differs in the depth and completeness of the disclosure of the topic; knowledge of the terminological apparatus; the ability to explain the essence of phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples; fluency in monologue speech, consistency and consistency of the answer. However, one or two inaccuracies in the answer are allowed. |
| On "THREE POINTS" the answer is assessed, which testifies mainly to the knowledge of the studied material, which is characterized by insufficient depth and completeness of the disclosure of the topic; knowledge of the basic issues of theory; poorly formed skills in analyzing phenomena, processes, insufficient ability to give reasoned answers and give examples; lack of fluency in monologue speech, logic and consistency of the answer. Several mistakes are allowed in the content of the answer. |
| On "TWO POINTS" the answer is assessed, revealing ignorance of the studied material, characterized by a shallow disclosure of the topic; ignorance of the main issues of theory, unformed skills in the analysis of phenomena, processes; inability to give reasoned answers, weak command of monologue speech, lack of consistency and consistency. Serious errors in the content of the answer are allowed. |
| ZERO POINTS" is given if there is no answer |
| **Testing** | "FIVE POINTS" is given on condition of 90-100% correct answers |
| "FOUR POINTS" is given on condition of 75-89% correct answers |
| "THREE POINTS" is given on condition of 60-74% correct answers |
| "TWO POINTS" is given on condition of 59% or less correct answers. |
| "ZERO POINTS" is given if there is no answer |
| **Written questionnaire** | "FIVE POINTS" is given to a student if he knows the conceptual apparatus, demonstrates the depth and complete mastery of the content of the educational material, in which he is easily oriented. |
| "FOUR POINTS" are given to the student for the ability to correctly present the material, but the content and form of the answer may have some inaccuracies. |
| "THREE POINTS" is awarded if a student discovers knowledge and understanding of the main provisions of the educational material, but expresses it incompletely, inconsistently, makes inaccuracies in the definition of concepts, does not know how to substantiate his judgments with evidence. |
| "TWO POINTS" is given if a student has scattered, unsystematic knowledge, does not know how to distinguish the main and the secondary, makes mistakes in the definition of concepts, distorts their meaning. |
| "ZERO POINTS" is set if there is no answer. |
| **Problem-situational tasks** | "FIVE POINTS" - the student correctly and fully conducts the initial assessment of the condition, independently identifies the satisfaction of which needs are violated, determines the patient's problems, sets goals and plans nursing interventions with their justification, conducts current and final assessment. |
| "FOUR POINTS" - the student correctly conducts the initial assessment of the condition, identifies the satisfaction of what needs are violated, determines the patient's problems, sets goals and plans nursing interventions with their justification, conducts the current and final assessment. Some minor difficulties in answering are allowed; justification and final assessment is carried out with additional comments from the teacher. |
| "THREE POINTS" - the student correctly but incompletely conducts the initial assessment of the patient's condition. Identifying the satisfaction of what needs are violated, determining the patient's problem is possible with leading questions from the teacher. Sets goals and plans for nursing interventions without justification, conducts ongoing and final assessment with leading questions from the teacher; Difficulties with a comprehensive assessment of the proposed situation. |
| "TWO POINTS" - wrong assessment of the situation; incorrectly chosen tactics of action. |
| "ZERO POINTS" is set if there is no answer. |
| **Practical skills** | "FIVE POINTS". The student has shown full knowledge of the program material, the workplace is equipped with all the requirements for preparation for performing manipulations; practical actions are performed sequentially in accordance with the algorithm for performing manipulations; all requirements for the safety of the patient and medical staff are observed; the time limit is observed; the workplace is cleaned in accordance with the requirements of the sanitary and epidemiological supervision; all actions are justified. |
| "FOUR POINTS". The student has shown complete knowledge of the program material, the workplace is not fully independently equipped to perform practical manipulations; practical actions are performed consistently, but not confidently; all requirements for the safety of the patient and medical staff are observed; time regulations are violated; the workplace is cleaned in accordance with the requirements of the sanitary and epidemiological regime; all actions are justified with clarifying questions of the teacher, made small mistakes or inaccuracies. |
| "THREE POINTS". The student showed knowledge of the basic program material in the amount necessary for the upcoming professional activity, but made no more than one fundamental mistake, the workplace is not fully equipped to perform practical manipulations; the sequence of their implementation is broken; unsure actions, leading and additional questions and comments of the teacher are needed to justify actions; all requirements for the safety of the patient and medical staff are observed; the workplace is cleaned in accordance with the requirements of the sanitary and epidemiological regime. |
| "TWO POINTS". The student discovered significant gaps in the knowledge of the practical skill algorithm, made more than one fundamental mistake, difficulties in preparing the workplace, the inability to independently perform practical manipulations; actions are taken that violate the safety of the patient and the medical staff, the requirements of the sanitary and epidemiological regime, safety measures when working with the equipment and materials used are violated. |
| "ZERO POINTS" is given if there is no answer |
| **Abstract defense** | "FIVE POINTS" is awarded if the student fulfills all the requirements for writing and defending the abstract: the problem is identified and its relevance is justified, a brief analysis of various points of view on the problem under consideration is made and their own position is logically stated, conclusions are formulated, the topic is fully disclosed, the volume is maintained, requirements for the external design, the correct answers to additional questions are given. |
| "FOUR POINTS" is given if the students meet the basic requirements for the abstract and its defense, but at the same time there are some mistakes. In particular, there are inaccuracies in the presentation of the material; there is no logical consistency in judgments; the volume of the abstract is not kept; there are omissions in the design; incomplete answers were given to additional questions during the defense. |
| "THREE POINTS" is given if the student allows significant deviations from the requirements for abstracting. In particular, the topic is covered only partially; factual errors were made in the content of the abstract or when answering additional questions; there is no output during protection. |
| "TWO POINTS" is given if the topic of the abstract is not disclosed to the students, a significant misunderstanding of the problem is revealed. |
| "ZERO POINTS" is given if there is no answer |
| **Presentation demonstration** | "FIVE POINTS" is awarded if there is a connection between the presentation and the program and curriculum, the corresponding section; the didactic and methodological goals and objectives of the presentation were achieved; provides reliable information about historical references and current events; all conclusions are confirmed by reliable sources; the language of the presentation is clear to the audience; the chronology is followed, the priorities are correctly set; logical transition to the conclusion; correct conclusions; the font is readable, the color (background, font, headers) is correctly selected, animation elements are present; no grammatical errors. |
| "FOUR POINTS" is given if the students meet the basic requirements for the presentation, but there are some mistakes. In particular, there are inaccuracies in the presentation of the material; a topic was chosen without taking into account the curriculum; there is no logical consistency in judgments; requirements for graphic content are not met; there are omissions in the design; incomplete answers were given to additional questions during the defense. |
| "THREE POINTS" is given if the student makes significant deviations from the requirements for presentation design. In particular, the topic is covered only partially; errors of fact were made in the content of the presentation or when answering additional questions; no output was presented during the demo. |
| "TWO POINTS" is given if the topic of the abstract is not revealed to the students, a significant misunderstanding of the problem is revealed. |
| "ZERO POINTS" is given if there is no answer. |
| **Practical tasks (Patient card)** | "FIVE POINTS" is awarded if the content corresponds to the given topic; the topic is fully disclosed and contains modern, reliable data; the text is written consistently, logically and correctly from the point of view of the norms of the Russian language; there are photographs, diagrams, according to the stated topic; matches the pictorial design. |
| “FOUR POINTS” is awarded if the student has issued a booklet that meets the same requirements as for the mark “excellent”, but made minor corrections in the text or image, which he himself corrects. |
| "THREE POINTS" is given if the content does not fully correspond to the declared theme; the topic is not fully disclosed and contains outdated data; the text is written consistently, logically, but there are mistakes from the point of view of the norms of the Russian language; not enough photos and diagrams are available; matches the pictorial design. |
| "TWO POINTS" is given if the content does not correspond to the declared topic; the topic is not fully disclosed and does not contain modern, reliable data; the text is not written consistently and logically, there are gross mistakes from the point of view of the norms of the Russian language; there are no photos and diagrams available; it does not match the pictorial design. |
| "ZERO POINTS" is given if there is no answer |

**Evaluation materials for each topic of the discipline**

**Module 1. Intestinal infections**

**Topic 1. typhoid fever, paratyphoid**

**Initial test**

Variant A (Choose one answer)

The causative agent of typhoid fever refers to:

A. virus

B. rickettsia

C. chlamydia

D. bacteria

The source of infection for typhoid fever is:

A. bird

B. animal

С. human

D. mosquitoes

The duration of the incubation period for typhoid fever is (days):  
A. 1-3  
B. 7-25  
C. 7-14  
D. 14-28

A specific complication of typhoid fever is:  
A. nephrite  
B. perforated peritonitis  
C. endocarditis  
D. pancreatitis

A rash in the abdominal giff appears on:  
A. 1-3 day of illness  
B. 4-7 days of illness  
C. 8-10 day of illness  
D. after 14 days of illness

For early diagnosis of typhoid fever apply:  
A. blood culture  
B. seeding bile  
C. urine culture  
D. Vidal reaction

A characteristic symptom of typhoid fever is:

A. bradycardia  
B. papular rash  
S. rhinorrhea  
D. polyadenopathy

The mechanism of infection with typhoid fever:

A. transmissive

B. aspiration

C. fecal-oral

D. parenteral

Variant B (Choose one answer)

Causative agent of typhoid fever is:

A. salmonella typhi

B. gram-positive

B. doesn't have flagella.

D. forms spores

The mechanism of infection with typhoid fever:

A. transmissive

B. aspiration

C. fecal-oral

D. parenteral

A specific complication of typhoid fever is:  
A. myocarditis  
B. pyelitis  
C. parotitis  
D. intestinal bleeding

For early diagnosis of typhoid fever apply:  
A. blood culture  
B. seeding bile  
C. urine culture  
D. Vidal reaction

For patients with typhoid fever is characterized by a rash:  
A. roseolous and petechial, abundant  
B. maculopapular, copious  
C. polymorphic spots, vesicles, pustules  
D. roseolous, scanty

The source of infection for typhoid fever is:

A. bird

B. animal

С. human

D. mosquitoes

The duration of the incubation period for typhoid fever is (days):  
A. 1-3  
B. 7-25  
C. 7-14  
D. 14-28

For patients with typhoid fever, a characteristic complaint is:  
A. headache  
B. back pain  
С. pain in the joints  
D. epigastric pain

*Questions for discussion*

1. Typhoid fever. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

2. Paratyphoid A and B. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

**SITUATIONAL TASKS**

**#1**

Patient S., 38 years old. Turned to the doctor 04/09. complaining about persistent moderate abdominal pain, single vomiting, increased temperature up to 38.6 ° C. From the anamnesis it is known that in 2 weeks of illness he returned from Cambodia. For the first time I felt unwell 22.08. - churned, headache. Temperature 37.4 ° C. Start ampicillini on 1 tab. 3 times a day. He continued to work, although the low-grade fever remained, there was a poor appetite. 27/08. manifestations of the disease disappeared, stopped taking ampicillini. On the night of 03/09 to 04/09 again fever, abdominal pain (mostly right), nausea, single vomiting.  
  
 Objectively: The state of moderate severity, the skin is pale, dry, there are several pink "spots" on the abdomen. The tongue is covered with a thick gray bloom, rather dry. The abdomen is moderately painful in the ileocecal region. There is also determined a slight muscle tension, mild Shchetkin-Blumberg's symptom. Diagnosed with acute appendicitis, he was taken to hospital, operated on.  
  
 The vermiform process is moderately hyperemic, edematous. When revision of the abdomen, a significant increase in the mesenteric nodes was observed, one of them was removed for histological examination. In the distal ileum, ulcers translucent through the intestinal wall were found.

Blood test: HB-126g / l, leukocytes-6,1 \* 109 / l, p / i-8%., S / i-51%, lim.- 38%, mon-3%, ESR-12 mm / hour. Diagnosed with "acute appendicitis, ulcerative ileitis".

1. Do you agree with this diagnosis?  
2. Make a preliminary diagnosis.  
3. Make a plan of examination and treatment.

#2

Patient B., 44 years old, an archaeologist, was admitted with complaints of weakness, fever, dry cough, sweating, loss of appetite on the 14th day of illness. She became ill on 11.05., When the first chill appeared, T - 39º, dry cough, insomnia, appetite disappeared. It was treated by a therapist - antipyretic, expectorant, antiviral drugs. On the 10th day, a rash was detected and the patient sent to the infectious diseases hospital.  
  
 When entering T - 39.2 º, the general condition of moderate severity. Pale skin, on the skin of the abdomen, isolated elements of roseolary rash. Pulse - 108 beats. Blood pressure - 110/75, the tones are muted systolic murmur at the apex. In the lungs breathing hard, scattered dry rales. The abdomen is soft, swollen, somewhat painful on palpation, rumbling. The liver protrudes 3 cm from beneath the edge of the arc, and the spleen is clearly palpable. On the 16th day few fresh roseolas appeared on the skin of the abdomen. The condition worsened, the patient sluggish, inhibited.  
  
On the 18th day a rich, liquid, tarry-colored stool appeared. The temperature dropped to 37 º, the pulse 120 beats. in minutes, blood pressure - 80/60. The abdomen during palpation is moderately painful in the right sections, local hypertonus of the muscles is noted. Last urination 6 hours ago.  
  
1. Make a diagnosis.  
2. Make a plan of examination and treatment.

**Topic 2 salmonellosis, food toxic infection**

Variant A (Choose one answer)

The basis of the classification of Salmonella is  
    1. Pathogenicity  
    2. Source of infection  
    3. Antigenic structure on O-antigens  
    4. Antigenic structure on H-antigens  
    5. Antigenic structure on K-antigens  
  
In the gastrointestinal form of salmonellosis, all the listed symptoms are observed, except  
    1. High fever intoxication  
    2. Yellowies, hemorrhagic syndrome  
    3. Cramping abdominal pain  
    4. Nausea. vomiting. frequent loose stools  
    5. Dehydration  
                                                          
To reduce diarrhea syndrome with salmonellosis, all of the above applies, except  
    1. Gluconate calcium  
    2. Papaverine  
    3. Indometacin  
    4. Imodium  
    5. Binding agents  
                                                     
In the pathogenesis of food toxicoinfections, all of the above, except  
    1. Local action of toxins in the gastrointestinal tract  
    2. General Toxic Syndrome  
    3. Violations of the synthesis of biologically active substances  
    4. Development of autoimmune reactions  
    5. Development of gastroenteritis

Salmonella has the following properties:  
1. have a coffee bean  
2. in the environment do not form spores  
3. contain endotoxin  
4. environmentally sustainable  
5. gram-positive  
  
For salmonellosis, the source of the pathogen is:  
1. infected bird  
2. ducks, geese, pigeons  
3. rats  
4. infected person  
5. infected animals, birds, people  
  
In the pathogenesis of salmonellosis plays a leading role:  
1. intensive reproduction of the pathogen in the intestine  
2. general and local action of endotoxin  
3. development of dehydration  
4. damage to the cardiovascular system  
5. bacteremia

Variant B (Choose one answer)

The main sources of Salmonella infection  
    1. Cattle  
    2. Pigs, sheep, ducks, chickens  
    3. Patient or carrier  
    4. Dogs, cats, mouse-like rodents, wild birds  
    5. All of the above  
  
  
The criteria for the severity of illness with salmonellosis are all of the above, except  
    1. Fever  
    2. Expressions of intoxication  
    3. Frequency of diarrhea  
    4. Duration of the incubation period  
    5. Toxic myocardial damage  
  
The epidemiology of foodborne diseases is characterized by all of the above, except  
    1. Pathogens are ingested from the external environment.  
    2. The way of infection alimentary  
    3. Often occur in the form of flashes.  
    4. Possible parenteral infection  
  
Differentiate poisoning from poisonous fungi from food toxicoinfection allows  
    1. Nausea, vomiting, frequent loose stools  
    2. Water electrolyte disturbances  
    3. Abdominal pain  
    4. Early increase and tenderness of the liver, jaundice  
    5. Headache, dizziness, weakness, hypotension  
  
Salmonella  
1. gram positive  
2. not sustainable in the environment  
3. not sensitive to chloramphenicol, tetracycline, ampicillin  
4. produce exotoxin  
5. grow in peptone broth  
  
Salmonella has the following properties:  
1. thermostable  
2. produce exotoxin  
3. gram positive  
4. are mobile  
5. antibiotic resistant  
  
For salmonellosis:  
1. The source of the pathogen are food products.  
2. The main mechanism of transmission of the pathogen-airborne  
3. The greatest danger is the infection of finished foods.  
4. The greatest danger is the lifetime infection of meat.  
5. sufficient heat treatment of food before use excludes contamination

*Questions for discussion*

1. Food toxic infection. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

2. Salmonellosis (non-typhoid). Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

**SITUATIONAL TASKS**

**#1**

Patient B., 48 years old, train driver, admitted to hospital on 3 August at 14.00. He fell ill acutely in the morning of August 3, when a rumbling appeared in his stomach, liquid, watery, abundant stools, and vomiting of food eaten. After 6 hours from the onset of the disease, the symptoms of dehydration appeared: periodic cramps in the calf muscles, moderate decrease of skin turgor. In the history of the indication of the use of water from the pond for drinking and household needs.  
  
Objectively: The temperature is 36.6 ° C, the pallor of the skin, light acrocyanosis, tongue coated with brown bloom, belly rumbling, painful on palpation in mesogaster, profuse watery stools. Anuria.

Make a preliminary diagnosis.  
Make a plan of examination and treatment.

#2

Emergency medical care is called to the first-aid post of the railway station to the patient J., 50 years old. The patient about 4 o'clock in the morning appeared abundant liquid stool, vomiting several times. At the railway station, he fainted. Neighbors in the carriage reported that the patient was eating sandwiches with sausage.

The ambulance doctor established a general serious condition. cyanosis, dry mucous membranes and skin, tachycardia, a small diffuse soreness on palpation of the abdomen. The introduction of hemodez (200 ml), glucose solution (1000 ml) was started in the ambulance car, but the condition did not improve. Delivered to the infectious diseases hospital.

Make a preliminary diagnosis.

Why there was no improvement in the condition of treatment?  
Make a plan of examination and treatment.

#3

Patient M., 38 years old, complains of weakness, fever, headache, cramping pain in the lower abdomen, more in the left part, rapid fluid stools with mucus and blood, false urges to defecate.  
 The patient considers himself since yesterday, when he felt chills, weakness, dizziness, and pain in the lower abdomen. A few hours later, loose stools appeared with mucus, 5-6 times in the evening and night. Body temperature is not measured.. Today in the morning the body temperature is 37.9 ° C, the pain in the abdomen has become more pronounced, mostly localized on the left. There were false urges. The volume of feces decreased, an admixture of blood appeared. The frequency of the chair for the past day about 15 times.  
 The state of moderate severity, temperature 38.4C. Skin normal color, hot, dry. The turgor is not lowered. In the lungs vesicular breathing. Heart sounds are rhythmic, muffled. Pulse 88 beats / min, rhythmic, satisfactory filling. Blood pressure 110/70 mm. hg. st. Tongue is dry, lined at the root. The abdomen is not swollen, soft, painful on palpation in the lower part, more to the left. A painful, spasmodic sigmoid colon is palpated. Symptoms of peritoneal irritation no. The liver and spleen are not enlarged. Inspection of feces: scanty, in the form of mucus with streaks of blood.

Make a preliminary diagnosis.  
 Make a plan of examination and treatment.

**Topic 3 bacillary dysentery, amoebiasis**

*Questions for oral interview*

1. Bacterial dysentery (shigellosis). Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

2. Amoebiasis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

**Incoming control**

1. Bacterial dysentery (shigellosis) is fecal-oral intestinal infection, characterized by …………………………….. syndrome and ………………………………….

2. Shigella ……………… and Shigella ……………….. cause 90% of the cases of shigellosis

3. Shigella species cause damage by 2 mechanisms: ………………………………………………………….. and …………………. ………………………………………………

4. The organism first takes up residence in the ……………….. intestine

5. Amebiasis is a protozoal infection caused by ………………… ………..

6. The causative agent of amoebiasis exists in two forms: …………. ……… ……………… and ………………….

7. The clinical features of amoebiasis can be divided into ……. …………. and ………………………… forms

**Test control**

SELECT ALL THE CORRECT ANSWERS

1. Shigella is:

1. virus

2. bacteria

3. protozoa

2. Shigella is:

1. gram-negative

2. gram-positive

3. Bacterial dysentery (shigellosis) is fecal-oral intestinal infection, characterized by:

1.intoxication syndrome

2. the lesion of the respiratory tract

3. distal colitis

4. meningitis

4. Mechanism of transmission of Bacterial dysentery is:

1. airborne

2. fecal-oral

3. transplacental

5. The maximum incubational period of Bacterial dysentery is:

1. 3 days

2. 5 days

3. 7 days

6. Factors of pathogen transmission are:

1. infected food

2. infected air

3.infected blood

4. infected water

7. Symptoms of shigellosis include:

1.acute bloody diarrhea

2. crampy abdominal pain

3.tenesmus

4. watery diarrhoea

5. passage of mucus

6. tussis

7. fever

8. For the treatment of Bacterial dysentery antibiotics

1. used

2. not used

9. Entamoeba histolytica is

1. virus

2. bacteria

3. protozoa

10. Ingestion of the cysts results in excystation in the

1. large intestine

2. small bowel

11. Extraintestinal amoebiasis includes hematogenous amoebic abscesses in

1.liver

2. lungs

3. brain

4. all of the above

**SITUATIONAL TASKS**

**Тask 1**

A patient, 30 years old, applied for a consultation on the 1st day of illness. Complaints of abdominal pain. Liquid stool with mucus, weakness, the temperature is 38°C.The disease started with a headache, a fever up to 38.3°C and a loss of appetite. Six hours later the patient developed diarrhea, accompanied by a cramping abdominal pain, and the pain in the anus after defecation.

Objective status. The condition is satisfactory, the skin is normal color, vesicular breathing, heart rate is 92 beats per minute. Muffled heart sounds; blood pressure is 100/60.The moist tongue is covered with white coat. Sigmoid colon is tender.

Questions

1. Make a preliminary diagnosis.

2. Make a differential diagnosis.

3. Make an examination and assign a therapy.

**Тask 2**

A patient, 30 years old, applied for a consultation on the 1st day of illness. Applied for a consultation in the clinic at the place of residence.

Complaints of headache, general weakness, malaise, temperature is39°C. In the morning, there was some pain in abdomen. Liquid, bulky stool every 10 minutes, then false defecation urge developed.

Objective status. The moist tongue is covered with white coat. The abdomen is soft, painful in the course of the descending and sigmoid colon. Muffled heart sounds; blood pressure is 110/70, heart rate is 92 beats per minute.

Questions

1. Make a preliminary diagnosis.

2. Make a differential diagnosis.

3. Make an examination and assign a therapy.

**Тask 3**

A patient, 48 years old, applied for a consultation on the 4th day of illness with complaints on cramping abdominal pain, liquid stool with mucus up to 5-6 times a day.

He developed illness 4 days ago, the temperature rose to 38.3°C, a headache, cramping abdominal pain, pain in the anus, appetite decreased, liquid stool.

The patient suffers from chronic spastic colitis and hypoacid gastritis.

ANAMNESIS. Over the past weeks, there were no contacts with patients having intoxication and intestinal disorders. The patient consumes unboiled water and raw milk.

Objective status. The state of moderate severity. The skin is clean. Vesicular breathing. Muffled heart sounds; blood pressure is 110/60, heart rate is 92 beats per minute.

The moist tongue is covered with white coat. Sigmoid colon is tender. Liver and spleen are not enlarged. Stool examination results: scanty, liquid, with large amounts of mucus, streaks of blood.

Questions

1. Make a preliminary diagnosis.

2. Make a differential diagnosis.

3. Make an examination and assign a therapy.

**Тask 4**

The doctor examined the patient with complaints on pain in the lower abdomen, frequent liquid stool with mucus and streaks of blood, a false urge to defecate. While palpating, there were pains in the left iliac region and sigmoid colon was tender.

Questions

1. Make a preliminary diagnosis.

2. Make a differential diagnosis.

3. Make an examination and assign a therapy.

**Тask 5**

Patient , 24 years old, works in the maternity hospital. When examining, the Shigella sonnei was detected. There are no complaints at the time of examination. Under rectoromanoscopy, there was catarrhal proktoshigmoidit detected. In the coprograma there was a large number of leukocytes.

Questions

1. Make a preliminary diagnosis.

2. Make a differential diagnosis.

3. Make an examination and assign a therapy.

**Тask 6**

Patient S., 30 years old, has complaints of weakness, headache, fever to 39,4°C, cramping pain in the lower abdomen, defecation is more than 15 times a day with mucus and blood.

He developed illness a day ago: there was malaise, chills, cramping abdominal pain, defecation up to 5 times a night. By the morning the condition got worse.

On examination: body temperature is 39,4°C, рulse115/min, blood pressure 90/70. Тongue is dry, covered with white coating. The abdomen is soft, painful when palpating in the left iliac region. The sigmoid colon is tender, painful. Feces contain a lot of mucus and blood.

From anamnesis: he works as a shop assistant in a food store.

Questions

1. Make a preliminary diagnosis.

2. Make a differential diagnosis.

3. Make an examination and assign a therapy.

**Topic 4 escherichiosis**

*Questions for oral interview*

1. EPEC. Prevalence. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Emergency treatment of dehydration. Prevention. Anti-epidemic measures.

2. EHEC. Prevalence. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Emergency care for complications of EHEC. Prevention. Anti-epidemic measures.

3. EIEC. Prevalence. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Emergency treatment of severe, EIEC. Prevention. Anti-epidemic measures.

4. ETEC. Prevalence. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Emergency treatment of severe, ETEC. Prevention. Anti-epidemic measures.

5. EAEC. Prevalence. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Prevention. Anti-epidemic measures.

**Incoming control**

1. Pathogenic serological types of Escherichia coli are divided into ….. groups

2. Patients with ……………. or …………………………….. of the disease are primary sources of infection and play the most important role in the spreading of the disease

3. Mechanism of transmission is ………………………………..

4. E. coli attack the epithelial cells of the …………………………………………………..

5. The incubation may last from 6 hours to ……. days

6. ETEC adhere to epithelium cells in the small intestine and produce …………………………………..

7. EPEC is usually characterized by the development of enteritis or enterocolitis. This clinical form of the disease is more characteristic for …………………….

8. EHEC may cause bloody diarrhoea, ……………………………………………………….and kidney failure without fever

9. Hemolytic uremic syndrome (HUS) defined by triad of ……………………………………………………………………………………………………………………………………………………………

10. The disease caused by EIEC is usually characterized by an …………………………………………….onset

11. In the majority of cases the disease runs ……………………complications

**Test control**

SELECT ALL THE CORRECT ANSWERS

1. E. coli is:

1.bacteria

2. virus

3. protozoa

2. E. coli is:

1. gram-negative

2. gram-positive

3. Primary sources of infection and play the most important role in the spreading of the disease are patients with:

1. mild forms

2. abortive forms

3. severe form

4. Mechanism of transmission is:

1. fecal-oral

2. airborne

3. transplacental

5. The maximum incubational period of Escherichioses is:

1. 3 days

2. 5 days

3. 7 days

6. ETEC are:

1. invasive

2. non-invasive

7. Frequently ETEC patients have symptoms of intoxication

1.mild intoxication

2. severe intoxication

8. The differential diagnoses of ETEC include:

1. rotavirus infection

2. Norwalk virus infection

3. bacterial dysentery

4. Salmonella infection

9. EPEC is more characteristic for:

1. older person

2. children

10. EHEC may cause:

1.bloody diarrhea

2.hemolytic-uremic syndrome

3. respiratory disorders

4. kidney failure without fever

11. Hemolytic uremic syndrome defined by:

1. hemolytic anemia

2. thrombocytopenia

3. respiratory disorders

4.renal failure

5. thrombocytosis

12. EIEC are :

1. highly invasive

2. non-invasive

13. In the majority of cases EIEC runs:

1.without complications

2. with complications

**SITUATIONAL TASKS**

**Тask 1**

The boy,4 months old, was on artificial feeding. Admitted to hospital on the 4th day of illness in a serious condition. The disease began with increased frequency of stool up to 15 times a day (watery, yellowish - orange color, with a small amount of mucus and green), regurgitation, poor appetite. On the 2nd day the increase of body temperature up to 37.5°C was registered, there was vomiting (2 times), liquid stool. In the following days, the child continued with fever, vomiting and regurgitation (up to 3 - 4 times a day), mucous membranes were dry, sudden bloating. The frequency of defecation increased up to 15 times a day (liquid, with a small amount of mucus and green). The child became restless, refused to eat, didn’t drink any water. The skin was pale, with the "marble pattern", the turgor is reduced, facial features are sharp. Breath up to 40/min. Heart sounds are muffled. Abdomen is much swollen, rumbling. Urine output is reduced. Meningeal symptoms are not present.

The analysis of feces on intestinal group: E. Со1і 0125

Coprogram: consistency – liquid, the muscle fibers (-), neutral fat (++),iodophilic flora (+), white blood cells – 10 – 12, erythrocytes (-).

Blood test: HB - 134 g/l, leukocyte 12.0 x l09/l, ESR - 15 mm/hour

Bacteriological examination of feces –Sh.Sonnei, Sh. flexneri and Salmonella spp. – negative.

Questions

1. Make a preliminary diagnosis.

2. Make an examination and assign a therapy.

**Тask 2**

The child, 7years old, was admitted to the intestinal department with complaints of

liquid stool, moderate fever and pain in the left iliac region. Preliminary diagnosis was dysentery. E. Coli O124 was detected after the bacteriological examination of feces.

Questions

1. Make a diagnosis.

2. Make an examination and assign a therapy.

**Тask 3**

The child, 10 months, was admitted to hospital in a serious condition. At the age of 3 months, he was sick with an intestinal infection of not established etiology. The disease under consideration started all of a sudden. The increase of body temperature up to 38°C was registered, the condition got worse, there was a repeated vomiting (up to 4 times per day) and increased frequency of stool up to 5-6 times a day (watery, yellowish - orange color, with a small amount of mucus). Initially, after admission to hospital, the condition improved, but 5 days later symptoms aggravated. The increase of body temperature up to 38°C was registered again. The child became restless, refused to eat, didn’t drink any water. The condition was assessed as severe. The vomiting was repeated, stool was copious, watery, up to 10 times a day, skin and tongue were dry. The large fontanelle was retracted. The weight loss was 15%. Breath up to 40/min. Heart sounds were muffled, 160 beats per minute. Abdomen was much swollen, rumbling. Urine output was reduced. Meningeal symptoms were not present. Despite therapy, the condition worsened. On the 15th day of illness the patient developed pneumonia. Bacteriological examination detected enteropathogenic E. coli O 111.

Questions

1. Make a preliminary diagnosis.

2. Make an examination and assign a therapy.

**Тask 4**

18 people became sick in a nursing home for the elderly. 14 patients had the disease of the shigellosis type. The most frequent symptoms were an abdominal pain, a diarrhea up to 5-10 times a day with mucus and blood, the increase of body temperature was up to 38,5°C.

On examination: sigmoid colon was tender. Bacteriological examination of feces for 10 people detected pathogenic serotypes of Escherichia coli O 124.

Questions

1. Make a preliminary diagnosis.

2. Make an examination and assign a therapy.

3. What preventive measures should be taken?

**Topic 5 yersiniosis, pseudotuberculosis**

*Questions for oral interview*

1. Intestinal yersiniasis. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Anti-epidemic measures. Prevention.

2. Pseudotuberculosis. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Prevention. Anti-epidemic measures.

**Incoming control**

1.Intestinal yersiniasis and pseudotuberculosis are acute zoonotic infectious diseases caused by………………………………………………………………

2.Yersinia enterocoliticabelongs to the family ……………………………. …

**3.** Mechanism of transmissionis ……………………………….

4. Тhe most important source of pseudotuberculosis are **………………..**

5. The most important source in transmitting the pathogen are used ………………………. ……………………………………………………………………..

6. As a foodborne pathogen, *Y. enterocolitica* can efficiently colonize and induce disease in the ……………………………………………

7. Resistance of *Y. enterocolitica* to …………………………….. is often seen today

**Test control**

SELECT ALL THE CORRECT ANSWERS

1. Yersinia enterocoliticais:

1. gram-negative bacillus

2. gram-positive bacillus

2. Y. enterocoliticais most frequently associated with:

1. enterocolitis

2. acute diarrhea

3. terminal ileitis,

4. cough

5. mesenteric lymphadenitis

6. meningitis

3. Mechanism of transmissionis:

1. faecal-oral

2. airborne

3. transplacental

4**.** Тhe most important source of infection pseudotuberculosisare:

1. chickens

2. rodents

3. wild animals

5. Is the sick human a source of pseudotuberculosis?

1. No, is not

2. Yes, is it.

6. As a foodborne pathogen, *Y. enterocolitica* can efficiently colonize and induce disease:

1. in the distal intestine

2. in the small intestine

3. in the lung

7. The primary inflammation focus of pseudotuberculosis occurs in:

1. the small bowel

2. meninges

3. lymphatic system of the intestine

4. the lung

5. lymph nodes

8. The picture of peripheral bloodof Pseudotuberculosisshows:

1. leukocytosis

2. leukopenia

3. ESR may be increased

4. ESR may be normal

9. Indications for antibiotic therapy are:

1. Severe clinical presentation

2. Мild clinical presentation

3. Elderly patients

4. Immunocompromised patients

10. *Y. enterocolitica* is often resistance to:

1. ciprofloxacin

2. ampicillin

**SITUATIONAL TASKS**

**Тask 1**

Patient K., 40, got sick 7 days ago, when he started shivering, body temperature increased to 38ºC. He had a weakness, a sore throat, a loss of appetite. On the 3rd day of illness, there was a pain in knee, ankle and wrist joints.

On examination: the condition was moderate severity. The body temperature was 38.7°C. There was hyperemia and swelling of face, injection of sclera. There was a punctate rash of the skin, predominantly on the flexor surface of the arms. Submandibular lymph nodes were moderately enlarged, painless. The throat was bright hyperemic, check in enanthema on the soft palate, uvula. Abdomen was soft, painful in the right iliac area. The patient breathed up to 40 respiratory movements/min. The pulse frequency was 98 BPM. The blood pressure 120/80. The liver was enlarged. The lien could not be palpated.

The anamnesis: a few days before, the patient had some fresh cabbage salad.

Questions

1. Make a preliminary diagnosis.

2. Make an examination and assign a therapy.

**Тask 2**

Patient S., 35, applied for a consultation on the 1st day of illness. He had complaints of increased body temperature up to 38.5 ºC, during the previous three days. There was general weakness, a sore throat, a headache, his body temperature was 38,7 ºC. On the 4th day of the disease, accompanied by high temperature, there appeared a punctate rash, and patients palms and feet were hyperemic and swollen. The throat was also hyperemic. The liver and the spleen were enlarged.

From the anamnesis it is known that 5 days before illness the patient had a Greek salad.

Questions

1. Make a preliminary diagnosis.

2. Make an examination and assign a therapy

**Topic 6 viral diarrhea**

*Questions for oral interview*

1. Rotavirus infection. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

2. Calicivirus infections.Noroviruses. Astrovirus infections. Enteric adenovirus infections. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Prevention. Anti-epidemic measures.

**Incoming control**

1. Rotaviruses belong to the family of …………………………….

2. Rotavirus infectionis an acute, viral disease with ……………………………………….. ………………………… mechanism of transmission

3. The viral genome contains …………………….

4. Under electron microscope the viruses look like …………………….

5. Sick persons or carriers release Rotaviruses ……………………………

6. This disease is most characteristic ………………………………….

7. In temperate climates the disease is more prevalent during ………………… …………………………………

8. In the tropics the disease may occur ………………………………………………….

9. Rotaviruses affect primarily ………………………………………………… …………………………………………………………..

**Test control**

SELECT ALL THE CORRECT ANSWERS

1. The most frequent mechanism of transmissionis:

1. faecal-oral

2. airborne

3. transplacental

2. Rotavirus infectionis most frequently associated with:

1. affection of gastrointestinal tract

2. usually a short febrile period

3. cough

4. mesenteric lymphadenitis

5. mild general intoxication

3. Rotavirus infectionis

1. anthropozoonoses

2. anthroponoses

4. The viral genome of Rotavirus contains

1. DNA

2. RNA

5. Is the sick animals a source of pseudotuberculosis?

1. No, is not

2. Yes, is it.

6. Sick persons or carriers release Rotaviruses

1. in feces

2. in CSF

7. This disease is most characteristic

1. of grown men

2. of children

8. In temperate climates the disease is more prevalent during

1.autumn

2. winter

3. spring

4. summer

9. The following groups are considered to be at high risk:

1.children in the children's facilities,

2. children in hospital wards,

3.care providers,

4.parents of the Sick children;

5.children and adults with immunodeficiency-related diseases.

6. all of the above

10. Rotaviruses affect primarily epithelial cells

1. in the large intestine

2.in the small intestine

**SITUATIONAL TASKS**

**Тask 1**

Patient N., 26 years old, applied for a consultation on the 1st day of illness with complaints on weakness, loss of appetite, headache, sore throat, slight cough, rumbling and discomfort in the abdomen. He had also some pain in the epigastrium, nausea, a vomiting three times a day, the increase of body temperature was up to 38°C. The stool became frequent up to 5 times a day, liquid, without visible pathological impurities.

On examination: the condition was of moderate severity, the skin was pale, body temperature was 37,6°C.Catarrhal symptoms were present - hyperemia of the soft palate, palatine arches, uvula and pharyngeal. When palpated, the abdomen was tender in the epigastric area. The pulse rate was 90 /min, the blood pressure was 100/60. The stool was liquid, without pathological impurities.

The anamnesis: the patient had been taking care after his 2-year-old son, who suffered "respiratory viral infection with intestinal syndrome", in the course of the week.

Questions

1. Make a preliminary diagnosis.

2. Make an examination and assign a therapy.

**Тask 2**

The boy, got sick at kindergarten. He developed a repeated vomiting. The stool was liquid, with mucus, the increase of body temperature was up to 38°C. Upon admission to the hospital (2nd day of illness): the condition was of moderate severity, the body temperature was 35,8°C.The child became restless, refused to eat, didn’t drink any water. The skin was pale of the "marble pattern", the turgor was reduced, facial features were sharp. The tongue was dry, covered with white coat. There was a hyperemia of the soft palate, palatine arches, uvula and pharyngeal. The patient breathed up to 40 respiratory movements/min. The pulse frequency was 160 BPM. Heart sounds were muffled, there was a systolic murmur on the apex of the heart. The abdomen was much swollen, rumbling. Urine output was reduced. Meningeal symptoms were not present. The liver and spleen could be palpated at the edge of the costal arch.

On the 3th day of the disease, the condition improved, the patient stopped vomiting, the stool was up to 5 times a day, without pathological impurities, the body temperature normalized.

Analysis of blood: Hb - 134 g/l, erythrocyte - 4,06\*1012/l, leukocyte -4,0\*109/l, ESR 6 mm/h.

Bacteriological examination of feces did not detect pathogenic bacterium.

Questions

1. Make a preliminary diagnosis.

2. Make an examination and assign a therapy.

**Topic 7** cholera

*Questions for oral interview*

1. Сholera. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

1 Etiology of cholera;

2 Epidemiology of cholera: mechanism of transmission, route and

transmission, source of infection;

3 Is there specific cholera prevention?

4 List the degree of dehydration in cholera and the clinic;

5 Cholera treatment: pathogenetic, etiotropic.

**Test control**

SELECT ALL THE CORRECT ANSWERS

**1. Maximum incubation period for cholera:**1) 1-3 days  
2) 5 days  
3) 7-10 days  
4) 12-15 days  
5) 48 hours.  
**2. The earliest characteristic sign of cholera:**1) loose stools  
2) fever with chills  
3) lack of consciousness  
4) "hands laundress"  
5) aphonia.  
**3. The main transmission route of cholera:**1) food  
2) water  
3) contact and household  
4) transmissive  
5) parenteral.  
**4. Uncharacteristic route of infection for cholera:**1) water  
2) alimentary  
3) air and dust  
4) contact and household  
5) all listed.  
**5. Characteristic cholera chair:**1) "rectal spittle"  
2) "raspberry jelly"  
3) "rice water"  
4) "meat slop"  
5) green, offensive.  
**6. Initial clinical manifestations of cholera:**1) fever, chills  
2) abdominal pain, cramping character  
3) diarrhea  
4) nausea, vomiting  
5) all of the above.  
**7. Pathogenetic therapy of cholera includes:**  
1) the introduction of gemodeza, polyglucin in / in  
2) the introduction of solutions acesol, trisol / in  
3) introduction of blood plasma in / in  
4) use of cardiovascular drugs  
5) the use of hormonal drugs.  
**8. For patients with cholera is characterized by the development of shock:**1) all below listed  
2) infectious-toxic  
3) anaphylactic  
4) cardiogenic  
5) hypovolemic.  
**9. Incorrect statement regarding cholera:**1) rehydration therapy is carried out in 2 stages  
2) when decompensated dehydration rehydration is carried out in / in the drip  
3) the use of cardiovascular drugs to combat decompensated dehydration is not shown  
4) pressor amines are contraindicated  
5) indications for hormone therapy are absent.  
**10. Which of the following measures is not carried out in identifying a patient with** **cholera among the passengers of the aircraft**:  
1) hospitalization of the patient  
2) observation of crew members for 5 days  
3) observation of passengers for 5 days  
4) bacteriological examination of crew members and passengers  
5) introduction of choleragen-toxoid to passengers and crew members.

**Task**

A 12-year-old boy, vacationing with his parents in India in the summer. Ill after 2 days after return: there was a short-term rise in temperature body up to 37.5 ° C, severe lethargy. Stool profuse, liquid, watery, type "Rice water". Defecation without pushing, often involuntary.

Hospitalized in a hospital in serious condition. Complaints about lethargy weakness, dizziness, severe thirst, repeated vomiting "Fountain".

On examination: the child is inhibited, the facial features are pointed, the eyes are sunken, blue around the eyes, the tongue is coated, dry. Hands and feet are cold. The skin is pale with a marbled pattern, on the abdomen -gathers in a fold, acrocyanosis. The pharynx is pale. The lymph nodes are not enlarged. Breathing hard wheezing is not heard. Pulse up to 140 beats per minute, deafness of the heart tones, shortness of breath. The abdomen is

retracted, soft, painless, on palpation - spilled rumbling. The liver and spleen are not enlarged. Liquid stool profuse, watery, cloudy white with floating flakes up to 12 times day. Diuresis is reduced. There are no meningeal signs.

Clinical blood test: HGB - 150 g / l, RBC - 5.0x1012 / l, C. p. - one;

WBC - 5.0x 109 / l; p / i - 4%, s / i - 60%, e - 2%, l - 26%, m - 8%; ESR - 5

mm / hour.

General urine analysis: relative density - 1038, protein -0.06% o, glucose - no, epithelium. cl. - unit in the preparation; leukocytes - 5-6 in f / s, erythrocytes - no.

Indicators of CBS: blood pH - 7.24 (N = 7.26-7.42); РСО2 - 30 mm

Hg (N = 26.5-40), PO2 - 70 mm Hg (N 90-100), BE - 0.5 (N = 0.65), plasma

potassium - 2.8 mmol / L, plasma sodium - 125 mmol / L.

1 Justify the diagnosis. What data from the epidemic history can be a confirmation of the alleged diagnosis?

2 Schedule additional laboratory tests?

3 Explain the pathogenesis of the development of diarrheal syndrome.

What type diarrhea refers to this disease?

4 Assign treatment.

5 Calculate the fluid for rehydration therapy.

**Topic 8** botulism

*Questions for oral interview*

1. Botulism. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

**Test control**

SELECT ALL THE CORRECT ANSWERS

1. All patients with botulism are characterized by all of the following complaints, except:

1 Headache

2 Weaknesses

3 Visual impairment

4 Dry mouth

5 Swallowing disorders

2. With botulism, all of the listed symptoms are noted, except:

1 Increase of the corneal reflex

2 Ptosis

3 Midriaz, nystagmus

4 Sluggish reaction of pupils to light, disruption of convergence and accommodation

5 Limitations of movement of eyeballs, exophthalmos

4. Signs of glossopharyngo neurological disorders in botulism are all of the following, except:

1 Difficulty opening the mouth, chewing pain

2 Swallowing disorders, fluid leakage through the mouth

3 Speech with a nasal hue, dysarthria

4 Osiplosti voices, aphonias

5 Dry mouth

5 Violation of innervation of muscles in botulism manifests itself in all of the above, except:

1 Disturbance of skin sensitivity

2 Sharp general weakness

3 Weaknesses and paresis of the muscles of the neck and upper limbs

4 Insufficiency of the respiratory muscles

5 Gait disturbances

6 The material for laboratory testing in botulism can be all of the following, except:

1 Bile

2 Kala

3 Urine

4 Blood

5 Stomach contents

7 The main method of laboratory diagnostics of botulism is:

1 Neutralization reaction on animals

2 Isolation of the pathogen from the patient

3 Complement fixation reaction

4 Immunoenzyme analysis

5 PCR diagnostics

8 The therapeutic dose of anti-botulinum serum for botulism is:

1 1 therapeutic dose regardless of the severity of the disease once

2 1 therapeutic dose once for mild and moderate severity

3 1 treatment dose twice with an interval of 8 hours for severe flow

4 1 therapeutic dose three times with an interval of 8 hours for severe flow

5 2 therapeutic doses three times with an interval of 8 hours for severe flow

9 As an etiotropic therapy in botulism apply:

1 Levomycetin

2 Tetracycline

3 Kanamycin

4 Penicillin

5 Vancomycin

10 As a pathogenetic therapy in botulism, all the listed activities are carried out, except:

1 Hemodialysis

2 Detoxification

3 Hyperbaric oxygenation

4 Gastric lavage and cleansing enema

5 Ensuring adequate nutrition of the patient

11 In the initial period of the disease with botulism observed:

1 All of the above

2 Pale skin

3 Increase in blood pressure

4 Tachycardia

5 None of the above

12 Criteria for the severity of the disease in botulism is all of the above except:

1 Severity of gastrointestinal syndrome and eye symptoms

2 Myasthenic syndrome

3 Swallowing disorders

4 Degree of acute respiratory insufficiency

5 Hemodynamic disorders

13 The clinical manifestations of respiratory failure in botulism are all of the following, except:

1 Dysatria

2 Absence of diaphragmatic breathing

3 Sharp restriction of mobility of the intercostal musculature

4 Disappearances of the cough reflex

5 Increasing respiration, reducing the vital capacity of the lungs

14 The main criterion for transferring patients with botulism to artificial ventilation is:

1 Indicator of vital capacity of lungs

2 Feeling "lack of air"

3 Severity of breathlessness and respiratory rate

4 Severity of glossopharyngonevrological disorders

5 Tachycardia

Patient B., 32 years old, was admitted to the infectious diseases department on 10.08. with complaints of weakness, dizziness, nausea, "a veil before the eyes," bloating. Acutely ill on 9.08. at 12 o'clock, when nausea, vomiting, pain in the epigastric region, dry mouth, weakness appeared. I washed my stomach on my own. The condition did not improve, weakness progressed, dizziness and vomiting remained. An ambulance was delivered to the infectious diseases department with a diagnosis of acute intestinal infection. In the emergency room, it was found that 4 days before the illness he ate homemade salted sturgeon brought from the Far North. In addition to the patient, his wife and colleagues ate fish. On objective examination, the condition is severe, temperature is 36.8 ° C., Consciousness is preserved, sluggish, pale, anisocoria, strobism, violation convergence, hoarse voice. Heart sounds are muffled, pulse is 90 beats per minute, blood pressure is 100/80 mm Hg. Tongue dry, covered with a white coating. The abdomen is distended, painful on palpation in the epigastric region. There was no chair. Diuresis is saved.

1) Diagnosis and its rationale

2) Survey plan

3) Treatment plan

4) Your actions in relation to persons who ate fish with the patient.

**Module No.2 Natural focal diseases**

**Topic 1** plague, tularemia

**Формы текущего контроля** **успеваемости:**

Устный опрос

**Оценочные материалы текущего контроля успеваемости**

*Questions for oral interview*

1. Рlague. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

2. tularemia. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

**Task**

Patient V., 40 years old, fell ill 4 days ago with chills, an increase in body temperature to 38 ° C, the appearance of pain and dense formation in the right axillary region. He took analgin, made compresses on the right axillary region - without effect. The condition worsened: the fever increased to 40 ° C, chills persisted in the evenings, the pain in the armpit gradually increased, which forced the patient to consult a doctor. From the epidemiological information: before the disease, I went to the Astrakhan region, helped with the housework, participated in agricultural work. On examination: on the right hand there is a wound covered with a purulent crust with hyperemia, with a cyanotic tint around it. In the right axillary region, a sharply painful formation measuring 5.0 \* 6.0 cm, dense, indistinctly contoured, with softening in the center, is determined; the skin above it is brightly hyperemic, there is a slight swelling around. Pulse - 100 / min., BP - 120/70 mm Hg. The patient is lethargic, adynamic. Bright blush on the cheeks. There are no focal and meningeal symptoms.

1. Make and justify the diagnosis.

2. With what disease do you have to differentiate this case in the first place?

3. Schedule an examination to confirm the diagnosis. Specify the rules for the collection of material for research in this disease.

4. Prescribe etiotropic therapy.

5. What is the forecast in this case?

**Topic 2** brucellosis

*Questions for oral interview*

1. Brucellosis. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

Patient Z. 42 years old, a meat-packing plant worker is sick for one month: she fell ill acutely, relatively acutely, with an increase in temperature to 38-39 C °, which lasts for the whole month, but is tolerated satisfactorily, and her ability to work remains.

On an outpatient basis, it was observed several times, 3-6 times with a diagnosis of acute respiratory infections. She was sent to a hospital with a diagnosis of "Fever of unknown origin".

Objectively: the temperature is 39 ° C, the general condition is satisfactory. The skin is moist, pale. The mucous membranes are clean. All groups of peripheral lymph nodes are enlarged in the size of "beans", "hazelnuts", mobile, painless, elastic.

The joints are apparently not changed, but there is pain in the hip and knee joints with slight restriction

Lungs unchanged.

P 108 beats per minute. HELL 100/60 mm Hg.

Tongue clean but dry (restless thirst). The abdomen is soft, painless. The liver is 3.0-3.5 cm below the edge of the costal arch,

The spleen is 1 cm below the edge of the costal arch. Elastically mobile, painless. Stool, urination are not disturbed.

Pasternatsky's syndrome is negative on both sides.

1. Make a diagnosis and justify it

2. With what will you differentiate this disease?

3. Prescribe treatment

**Topic 3** anthrax

*Questions for oral interview*

1. Аnthrax. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

**Test control**

1. CAUSATIVE AGENT OF ANTHRAX

1) Corynebacterium diphtheriae

2) Bacillus anthracis

3) Klebsiella pneumoniae

4) Bacteroides fragilis

5) Pseudomonas aeruginosa

2. MORPHOLOGY OF THE CAUSATIVE AGENT OF ANTHRAX

1) ovoidny gram-positive sticks

2) small gram-negative sticks

3) curved gram-negative sticks

4) gram-positive sticks, large with the chopped-off ends

5) the gram-positive sticks having the spindle form

3. CAUSATIVE AGENT OF ANTHRAX

1) optional anaerobe bacteria

2) obligate anaerobe bacteria

3) kapnofit

4) mikroaerofit

5) obligate aerobe

4. CAUSATIVE AGENT OF ANTHRAX

1) it is exacting to nutrient mediums

2) it is not exacting to nutrient mediums

3) it is actively mobile

5. IN BROTH THE CAUSATIVE AGENT OF ANTHRAX GROWS IN THE LOOK

1) granular deposit

2) stalactites

3) cotton wool lump

4) stir up

5) gentle gray film

6. ON MPA OF THE BACILLUS OF ANTHRAX GROW IN THE LOOK

1) rough R-colonies with fibrous structure ("a lion's mane")

2) mucous colonies in a S-form

3) gentle, transparent, bluish colonies

4) black roundish colonies with metal gloss

5) do not grow at all

7. DISPUTES OF BACILLI OF ANTHRAX CAN REMAIN IN THE SOIL

1) no more than a month

2) no more than a year

3) vaguely long

4) perish instantly

5) in the soil are not formed

8. EDUCATION CONDITIONS DISPUTE ANTHRAX BACILLI

1) 37 °, inflow of O2, existence of pitatelnykhveshchestvo

2) 42 °, inflow of O2, availability of nutrients

3) 42 °, lack of O2, deficiency of nutrients

4) 18– 30 °, inflow of O2, availability of nutrients

5) 18– 30 °, lack of O2, deficiency of nutrients

9. THE MAIN SOURCE OF THE INFECTION AT ANTHRAX

1) sick person

2) rodents

3) sheep and cattle

4) fishes

5) bacillicarrier

10. THE MAIN ENTRANCE GATE AT ANTHRAX

1) uninjured skin

2) the injured skin

3) conjunctiva of eyes

4) mucous membranes of airways

5) mucous membranes of a GIT

11. METHOD OF EXPRESS DIAGNOSIS OF ANTHRAX

1) skin and allergic test with antraksiny

2) reaction of an immobilization with diagnostic serum

3) The REEF with the studied marked-out culture

4) The REEF with the studied material

5) biological test

12. THE STUDIED MATERIAL FOR EXPRESS DIAGNOSTICS OF THE MAIN FORM OF ANTHRAX

1) blood

2) excrements

3) phlegm

4) anthrax exudate

5) serum

13. THE STUDIED MATERIAL FOR THE BACTERIOLOGICAL METHOD AT THE MALIGNANT ANTHRAX

1) phlegm

2) anthrax exudate

3) excrements

4) blood

5) all above-mentioned

14. THE MASS DISEASE OF THE PULMONARY FORM OF THE MALIGNANT ANTHRAX – THE CERTIFICATE

1) mass disease of animals

2) low level of coverage inoculations

3) delivery from the natural center

4) openings of the cattle mortuary

5) bioact of terrorism

15. MALIGNANT ANTHRAX

1) antroponozny infection

2) zoonotic infection

3) droplet infection

4) "disease of dirty hands"

5) natural focal infection

16. MAIN CLINICAL FORM OF THE MALIGNANT ANTHRAX

1) bubonic

2) skin

3) pulmonary

4) intestinal

5) septic

**Topic 4** tick-borne encephalitis

**Tick-borne encephalitis (TBE) - Initial test**

**Variant A (Choose one answer)**

Specify the dose of specific immunoglobulin used for prophylaxis:

1. 1-3 ml

2. 1-1,5 ml

3. 1.0 ml per 1 kg of weight

4. 0.1 ml per 1 kg of weight

The indications for the introduction of a specific immunoglobulin for prophylactic purposes are:

1. timing after sucking a tick less than 96 hours

2. tick sucking in an endemic area

3. proven virus mite

4. all of the above

The main method of laboratory diagnosis of tick-borne encephalitis is:

1. microscopy

2. bacteriological

3. serological

4. all of the above

Choose a non-characteristic symptom for meningeal form tick-borne encephalitis

1. fever

2. convulsions

3. vomiting

4. meningeal signs

What type of drugs should used to treat patients with tick-borne encephalitis

1. vaccine

2. antibiotics

3. specific tick immunoglobulin

4. bacteriophages

Choose a combination of symptoms characteristic of meningeal CE

1. headache, fever, hemorrhagic rash

2. fever, cough, sore throat

3. fever, headache, photophobia, stiff neck muscles

4. fever, back pain, frequent urination

The emergency vaccination scheme for tick-borne encephalitis is carried out before visiting the TBEV(+) regions for

 17 days

 2. 7th day

 3. 21-28 days

 4. more than 30 days

The first revaccination against tick-borne encephalitis is carried out through

 1. 6 months

 2. 9 months

 3. 12 months

 4. 24 months

**Task**

Woman Yu, 35 years old, housewife, lives in the village. A week ago, I was butchering the carcass of a forced slaughter cow. 4 days ago, a bubble appeared on the inner surface of the lower third of the right forearm, which the patient scratched and by the end of the day a small swelling appeared around it; the next day, the swelling began to increase, by the 3rd day of illness it reached the upper third of the shoulder, a black crust formed in the center of the bubble. Temperature from the 3rd day of illness within 38 ° -38.5 ° C, worried about weakness, headache.

Objectively: the state of moderate severity, temperature 38 ° C, slight hyperemia of the face. The tongue is coated with a grayish bloom. In the area of ​​the right hand, forearm, shoulder up to the middle third, pronounced edema, skin color is not changed, on the inner surface of the middle third of the forearm there is a black dense scab with a diameter of 1.5 cm, surrounded by a corolla of vesicles filled with serous contents. Palpation of this area is painless, the axillary lymph nodes on the right are enlarged to the size of a hazelnut, and are sensitive to palpation. On the part of internal organs without pathology. The stool is normal.

THE TASK.

1. Make and justify the diagnosis.

2. Make differential diagnostics.

3.Tactics of the doctor?

**Tick-borne encephalitis (TBE) - Initial test**

**Variant В (Choose one answer)**

Select the average course dose of a specific immunoglobulin, administered with meningeal TBE form:

1. 5-10 ml

2. 10-20 ml

3. 30-50 ml

4. 70-100 ml

Tick-borne encephalitis vectors are

1. hammock ticks

2. mosquitoes

3. ixodic ticks

4. body lice

The duration of the incubation period for tick-borne encephalitis is:

1. 1-5 days

2. 1-10 days

3. 3-21 days

4. up to 30 days

Emergency prevention of tick-borne encephalitis is:

1. antibiotics

2. the introduction of normal human immunoglobulin

3. the introduction of a specific human immunoglobulin

4. vaccination

Tick-borne encephalitis pathogen belongs to

1. bacteria

2. viruses

3. Rickettsia

4. borrelia

Choose a combination of symptoms characteristic of the meningoencephalitic form of tick-borne encephalitis

1. fever, cough, headache

2. fever, disturbance of consciousness, convulsions, delirium

3. fever, headache, hemorrhagic rash

4. fever, headache, blurred vision, back pain

Select a combination of symptoms characteristic of poliomielitis form tick-borne encephalitis

1. Fever, headache, vomiting

2. Fever, muscle pain, paralysis of the lower limbs

3. Fever, weakness, paresis of the muscles of the neck, shoulder girdle

4. Headache, vomiting, normal body temperature

Select the frequency of vaccine for the prevention of tick-borne encephalitis

 1. once

 2. two times

 3. three times

 4. four times

TBE. Etiology. Epidemiology. The route of transmission. Pathogenesis. Clinic. Clinical classification. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

**SITUATIONAL TASKS**

#1

Patient G., 45 years old, was admitted to the infectious diseases hospital after 1 day from the tick bite. He lives in endemic area of tick-borne encephalitis. After the tick bite he tryed to extract a tick and damaged it. Now the place of bite is a red point on the neck.

1. Make a preliminary diagnosis.
2. Prescribe a treatment.
3. Make a plan of diagnostic (for tick and for patient)
4. Will you recommend a vaccination for this patient?

#2

Patient E., 37 years old, was admitted to the infectious diseases hospital after 5 days from the tick bite. He lives in endemic area of tick-borne encephalitis. After the tick bite he tryed to extract a tick and totally had removed it. But he didn’t visit the laboratory to check a tick TBEV-state. Now the place of bite is a red point on the right ancle.

1. Make a preliminary diagnosis.
2. Prescribe a treatment.
3. Make a plan of diagnostic (for tick and for patient)
4. Will you recommend a vaccination for this patient?

#3

Patient L., 52 years old, was admitted to the infectious diseases hospital after 2 days from the tick bite. He lives in non-endemic area of tick-borne encephalitis. After the tick bite he tryed to extract a tick and totally had removed it. But he didn’t visit the laboratory to check a tick TBEV-state. Now the place of bite is a red point on the body.

1. Make a preliminary diagnosis.
2. Prescribe a treatment.
3. Make a plan of diagnostic (for tick and for patient)
4. Will you recommend a vaccination for this patient?

#4

Patient W., 23 years old, was admitted to the infectious diseases hospital after 5 hours from the tick bite. He lives in non-endemic area of tick-borne encephalitis. After the tick bite he tryed to extract a tick, but tick is still staying on the skin.

1. Make a preliminary diagnosis.
2. Prescribe a treatment.
3. Make a plan of diagnostic (for tick and for patient)
4. Will you recommend a vaccination for this patient?

**Module No. 3 Other infectious diseases**

**Topic 1 poliomyelitis**

*Questions for oral interview*

1. Poliomyelitis The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Anti-epidemic measures. Prevention.

2. Abortive poliomyelitis. Clinic. Differential diagnosis.

3. Paralytic poliomyelitis. Clinic. Differential diagnosis.

4. Spinal poliomyelitis. Clinic. Differential diagnosis.

5. Bulbar poliomyelitis. Clinic. Differential diagnosis.

**Incoming control**

1. Rarely poliomyelitis is characterized by affection of ……. …. …… ……. …. ..……………………………………………………….

2.Poliomyelitis is caused by a very small RNA-containing virus (Poliovirus hominis), belonging to the genus ……………………………………………, family…………………………………………..

3. The sources of poliomyelitis are …….…………………..………………. ……………………………………………………………………………………………

4. Polioviruses stands out into the external environment with …………….. ………………………………..

5. The infectivity of patients with poliomyelitis is the greatest during an …………………………………… stage of the disease

6. This infection primarily spreads by………………………………..…… mechanism

7. About 90—95% of infected patients have ..……………………………. …………… form of the disease

8. The incubation period of poliomyelitis ranges from ……………… days but may sometimes be as short as two days or as long as ………….. days

**Test control**

SELECT ALL THE CORRECT ANSWERS

1. Rarely poliomyelitis is characterized by affection of

1. nasopharynx

2.the intestinal tract

3. mesenteric lymphadenitis

2. Polioviruses infect most commonly

1. older children

2. younger children

3. The Polioviruses are:

1. very stable in the external environment

2.not stable in the external environment

3.resistant to low temperature, freezing and desiccation.

4.not destroyed by digestive juices

5.destroyed by digestive juices

6.not sensitive to the action of the known antibiotics.

7.destroyed by heating at 56 °C for 30 minutes.

8.killed in boiling water immediately.

4. The sources of poliomyelitis are

1. animals

2.virus carriers

3. patients with clinical forms of the disease

5. According to the Global Polio Eradication Program polio remains endemic now in three countries

1.Nigeria

2.Tunisia

3.Afghanistan

4.Pakistan

6. Immunity to polioviruses is

1. not stable

2. stable

3. usually lasts the whole life.

7. A minor or abortive illness develops which

1. involve the CNS

2.does not involve the CNS

8. The major illness usually affects

1.older children

2. younger children

3.adults

9. Poliomyelitis may be divided into the following forms:

1.spinal

2.bulbar

3.bulbospinal

4.рontine

5.encephalitic

6. all of the above

**SITUATIONAL TASKS**

**Тask 1**

The child, 3 years old. His mother applied for a consultation on the 5th day of illness with complaints of temperature rise to 37,9ºC, pronounced weakness, sore throat, runny nose, lack of active movements in the legs, inability to stand, and walk, headache, irritability.

The disease started all of a sudden. The temperature rose to 38,7ºC. The patient had a runny nose, sore throat, weakness, and hypersensitivity.

On examination: the patient’s skin is pale, lower extremities are cold, hyperemia of pharynx is observed, there are positive symptoms of tension, a passive movement in the legs in full, normal sensitivity. In the lungs there is vesicular breathing, respiratory rate is 26 per min, heart tones are weakened, heart rate is 115 / min. The abdomen is soft, painless. The stool is 3 times per day, liquid.

Questions

1. Make a preliminary diagnosis.

2. Make an examination and assign a therapy.

**Тask 2**

A boy of 7 years old, was suddenly ill. He had a temperature of 39,6°C, repeated vomiting, dizziness, muscle weakness. On the 3rd day, the parents noticed dysphonia, his eyelids could not close, he developed facial droop. The child did not received protective vaccination.

Questions

1. Make a preliminary diagnosis.

2. Make an examination and assign a therapy.

3. What diseases should be diagnosed on a differential basis?

**Тask 3**

The incubation period is 3-6 days, preparalytic period up to 1 week, paralytic period up to 2 weeks, recovery period lasts for several years.

Questions:

1. What diseases and what form of disease is this sequence characteristic for?

2. Laboratory studies required for setting the diagnosis.

3. Therapeutic measures during the paralytic period.

4. Therapeutic measures during the recovery period.

**Тask 4**

The girl, 1 year 4 months old, was admitted to the infectious diseases hospital with complaints of sudden absence of active movements in the lower limbs.

A few days before the girl had catarrhal phenomena. She was treated at home with a diagnosis of respiratory viral infection.

A month before the disease, the girl received the vaccine against polio. Upon admission to the hospital, her condition was satisfactory, the temperature was normal. She could not stand on her legs, active movement was absent, and there was a hyperesthesia. The tendon reflexes were not registered. The internal organs had no pathological changes. After 10 days of hospitalization, the active movement in the legs was restored, the muscle tone was still reduced, the tendon reflexes appeared.

Questions

1. Make a preliminary diagnosis.

2. Make an examination and assign a therapy.

**Тask 5**

In kindergarten, the specialists revealed a child of 2 years old with poliomyelitis.

Questions:

Conduct anti-epidemic measures.

**Topic 2** leptospirosis

*Questions for discussion*

Leptospirosis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Clinical classification. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

**SITUATIONAL TASKS**

**#1**

Patient S., 26, was admitted to the hospital in June. He complain of jaundice, fever, headache, pain in the muscules up to the 5 days. He has never had jaundice before. There have been no parenteral interventions for six months. There is a jaundice of the sclera and the skin, the liver can be palpated 1 inch below the edge of the costal arch, is sensitive to feeling and beating.

Total blood bilirubin-198 µmol/ l, direct bilirubin-126 µmol, ALAT -564.0 units/l.

1. Make diagnosis and plan of diagnostic

2. Prescribe necessary treatment.

**Topic 3** Endemic typhus

*Questions for discussion*

Endemic typhus. Еtiology. Еpidemiology. Pathogenesis. Clinic. Clinical classification. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

**Module 4 Airborne infections**

**Тема 1** influenza, parainfluenza

*Questions for oral interview*

1. Influenza. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

2. Parainfluenza. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

**Test control**

SELECT ALL THE CORRECT ANSWERS

1.What is the Incubation period for influenza?

A. 2-3 days

B. 1-2 days

C. 4-5 days

D. 1-2 weeks

2.What was the mortality rate of the 1918 influenza pandemic?

A. 2.5%

B. 5%

C. 3.9%

D. 100%

3.What were some Signs and Symptoms of influenza?

A. Blinking, uncontrollable bleeding, telling the truth, sleeping...

B. Blue eyes, high pitched voice, small feet...

C. Skits, Body Aches, Myalgia, headache, fever, hemoraging of mucus membranes...

D. Severe cramps, homeostasis, loss of liver cells, uncontrollable esophagus...

4.Pathogenesis of Influenza

A. It is looking for brain cells

B. Social pressures

C. It is trying to replicate

D. It is looking for the liver

**Topic 2** acute respiratory disease

*Questions for oral interview*

1. Аcute respiratory disease. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

**Topic 3 meningococcal infection**

*Questions for oral interview*

1. meningococcal nasopharyngitis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

2. meningococcal meningitis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures. urgent care.

3. meningococcemia. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures. urgent care.

**Incoming control**

1. Meningococcal infection includes three major clinical forms: …………… ………… …………………………………………………………………….

2. The causative agent of meningococcal disease is ……………………… ……………………………

3. The sources of infection are ………………………………………. ……. ….. and ….

4. The most important role in the spread of the disease play………………….. …. …………

5. Mechanism of transmission of the meningococcal infection is …………………

6. The most frequent clinical form of meningococcal infection is ……….. …………………….

7. The most severe complication of the meningococcal infection is: … ……… ................................

8. In children's institutions quarantine must be imposed on the ………….. after discovery and hospitalization of a patient

9. The typical rash in meningococcal infection is …………………………

**Test control**

SELECT ALL THE CORRECT ANSWERS

**1. Meningococcal infection** **is:**

1. anthroponosis

2. anthropozoonosis

**2. Meningococcal infection includes three major clinical forms:**

1. meningococcal nasopharyngitis

2. meningococcal meningitis

3. meningococcal pneumonia

4. meningococcal endocarditis

5. meningococcemia

**3. Neisseria meningitides** **is:**

1. gram-positive

2. gram-negative

**4. In the external environment meningococcus is:**

1. very unstable

2. very stable

**5. The source of infection is:**

1. only animals

2. only human

3. animals and human

**6. The most important role in the spread of the disease play:**

1. healthy carriers of N. meningitidis

2. patients with generalized forms of the meningococcal infection

3. patients with nasopharyngitis

**7. Mechanism of transmission is:**

1. аirborne

2. fecal-oral

3. blood-contact

**8. The maximal incubation period in meningococcal infection is:**

1. 5 days

2. 7 days

3. 10 days

**9. The most frequent clinical form of meningococcal infection is:**

1. nasopharyngitis

2. meningococcemia

3. meningitis

4. meningococcal pneumonia

**10. The most severe complication of the meningococcal infection is:**

1. a pneumonia

2. a toxic shock

3. a pulmonary edema

**11. Quarantine must be imposed:**

1. on the 5th day

2. on the 7th day

3. on the 10th day

**12. The typical rash in meningococcal infection is:**

1. papular

2. hemorrhagicwith necrosis in the center of this macula

3. roseolous

**13. Examination of the CSF shows:**

1. glucose level is low

2. glucose level is elevated

3. increased neutrophilic cytosis

4. increased lymphocytic cytosis

5. protein concentration decreases

6. protein concentration increases

**14. Etiological diagnosis** **of the meningococcal infection is made:**

1. after bacteriological investigations

2. after polymerase chain reaction

3. after immunological tests

4. all of the above is true

**SITUATIONAL TASKS**

Task 1

Patient T., 25, got sick all of a sudden on the way from sports competitions. Upon arrival he felt himself pretty well and went to the bathroom to take a shower. In an hour he was found unconscious on the floor by his wife. They called for an ambulance and the patient got into hospital with a diagnosis an acute poisoning.

Examination results: the patient is in critical condition, unconscious, limb periodic convulsions, cyanosed face. Temperature 39,8 C0. There are dark red spots on the skin together with multiple hemorrhagic stellate rash of different sizes from small to big ones. Especially big hemorrhages are in thighs. Pulse cannot be detected. Soft heart sounds, pulse 140-160/min, blood pressure-40/70. Shallow breathing, respiration rate-40/min.

According to his wife, the patient was in good condition, with no health problems, no traumas, no chronic diseases, etc.

1. Make presumed diagnosis and its justification.

2. Make a survey plan.

3. Prescribe necessary treatment.

Task № 2

Patient K., 17, got sick all of a sudden. He had a strong headache, more intensive in the area of the forehead, general weakness, pain in his back. In several hours he develop nausea, and then repeated vomiting, temperature increased to 39,8°C. He was hospitalized in the department of infectious diseases.

Anamnesis: 5 days before the patient had nasal congestion, throat irritation, dry, rare cough, temperature was increased up to 37.5°C. He did not take medication.

Examination results: the patient is over excited, moan witch pain. There are dark red spots on the skin together with multiple hemorrhagic stellate rash of different sizes from small to big ones. Pulse-92 / min., rhythmic, BP - 80/60. Baked tongue. Abdomen is painless and soft on palpation. Liver and spleen are not enlarged. Vesicular breathing. The XII rib symptom is negative from both sides. Stiffness of the neck, a Kernig symptom, upper and lover Brudzinski symptoms are positive.

1. Make presumed diagnosis and its justification.

2. Make a survey plan.

3. Prescribe necessary treatment.

Task 3

Patient M., 27, got sick all of a sudden. She had malaise, headache. Temperature was increased up to 39.5°C. She had a rash on her skin. Pulse 120 / min., rhythmic, BP-90/60. She was hospitalized in the department of infectious diseases with a "Measles" diagnosis.

Anamnesis: 3 days before the patient had throat irritation, rare cough.

Examination results: severe condition, acrocyanosis, fever. There were pinkish-red spots and single hemorrhages on the skin of the shins, thighs, buttocks and abdomen. Vesicular breathing. Pulse 130 / min., rhythmic, BP-70/50. The oropharynx mucosa was hyperemic. The tongue was dry, with a white coating. Abdomen was soft, painless. Liver and spleen were not enlarged. No meningeal signs. Stool was normal, urine output was reduced.

1. Make presumed diagnosis and its justification.

2. Make a survey plan.

3. Prescribe necessary treatment.

Task 4

Patient A, 17, was sent to the department of the infectious diseases because her classmate had been hospitalized with a "generalized form of meningococcal infection" diagnosis the day before. She was complains of a slight sore throat.

The examination detected N. meningitidis group B in the nasopharynx of contact persons of the patient.

Examination results: the condition was normal, the skin was clean, the temperature 37.1°C. There was slight hyperemia in the throat. From The other organs were not pathology.

1. Make presumed diagnosis and its justification.

2. Make a survey plan.

3. Prescribe necessary treatment.

**Topic 4 diphtheria**

*Questions for oral interview*

1. pharyngeal (faucial) diphtheria. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

2. laryngeal diphtheria (croup). Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures. urgent care.

3. nasal diphtheria, ocular diphtheria, diphtheria of sexual organs. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures. urgent care.

**Incoming control**

1. Corynebacterium diphtheriae are three biotypes of diphtheritic bacteria ………………………………………… …………………..

2. The source of infection is . …. …………….. ……………… …………. ……

3. Epidemiologically, patients with ……………………,……………… ………….

are more dangerous

4. The mechanism of transmission of diphtheria is ………..............

5. The major pathogenicity determination of C. diphtheriae is ……………………

6. The incubation period of diphtheria usually averages ………………

7. There are several varieties of clinical forms of the disease: ................................

…………………………………………………………………………………………….

8. The clinical picture of diphtheria depends on …………………………………

9. According to the degree of intoxication and spread of inflammatory process the following clinical forms of pharyngeal (faucial) diphtheria are determined: …………………………………………………………………………………………………..

10. Depending on the ………………………… faucial diphtheria is subdivided into subtoxic form of the first, second and third degree

11. In the toxic faucial diphtheria of the first degree edema of subcutaneous tissue spreads to …………. ………………………………….

12. In the toxic faucial diphtheria of the the second degree edema of subcutaneous tissue spreads to ……………………………………………..

13. In the toxic faucial diphtheria of the third degree edema spreads ……………… (

**Test control**

SELECT ALL THE CORRECT ANSWERS

**1. Diphtheria is:**

1. anthroponosis

2. anthropozoonosis

**2. Diphtheria is accompanied by:**

1. а granulomatous inflammation

2. a fibrinous inflammation

**3. Corynebacterium diphtheriae are:**

1. gram-positive

2. gram-negative

**4. The severest forms of the disease cause:**

1. C. diphtheriae gravis

2. C. diphtheriae mitis

3. C. diphtheriae intermedius

**5. The source of infection is:**

1. animals

2. human

**6. Epidemiologically, patients are more dangerous with next form of the disease:**

1. mild form

2. moderate form

3. abortive form

4. healthy carriers

5. severe form

**7. Mechanism of transmission is:**

1. аirborne

2. fecal-oral

3. blood-contact

**8. Infants less than 6 months are:**

1. susceptible

2. not susceptible

**9. The major pathogenicity determination of C. diphtheriae is:**

1. bacterial cell wall

2. endotoxin

3. exotoxin

**10. In the larynx, trachea and bronchi the membranes are:**

1. not closely connected with the underlying tissues

2. closely connected with the underlying tissues

**11. In the tonsils, palatine arches, uvula, other parts of the oral cavity the membranes are:**

1. not closely connected with the underlying tissues

2. closely connected with the underlying tissues

**12. In the toxic faucial diphtheria of the first degree edema of subcutaneous tissue spreads:**

1. to the clavicle

2. to the second cervical fold

3. below the clavicle

**13. In the toxic faucial diphtheria in the second degree edema of subcutaneous tissue spreads:**

1. to the clavicle

2. to the second cervical fold

3. below the clavicle

**14. In the toxic faucial diphtheria of the third degree edema of subcutaneous tissue spreads:**

1. to the clavicle

2. to the second cervical fold

3. below the clavicle

**15. In the toxic form of the pharyngeal diphtheria toxin severely affects:**

1. the nervous system

2. the gastrointestinal tract

3. the cardiovascular system

4. CNS

**SITUATIONAL TASKS**

Task 1.

Patient T., 40, was hospitalized in the department of infectious diseases with complaints of pain in the throat, fever.

Anamnesis: got sick all of a sudden. The disease began with general malaise and sore throat.

Examination results: the patient was in critical condition, adynamia, pallor of the skin. The temperature was 39°C. There was dense diffuse edema of the cervical fiber to the level of the clavicle. The oropharynx was hyperemic with a cyanosis. The throat was swollen. The scurf had on the surface of tonsils. The scurf was a dense shiny white, he was spreading to the soft and hard palate. Regional lymphadenitis. Puls 120/min, BP-100/60.

On the 15th day of stay in the hospital, the patient had a nasal voice and choking when taking liquid food. In the following days, the patient noted numbness of fingers and feet. The examination revealed a decrease in tendon reflexes.

1. Make presumed diagnosis and its justification.

2. Make a survey plan.

3. Prescribe necessary treatment.

Task 2.

Patient T., 36, was hospitalized in the department of infectious diseases with a "acute tonsillitis" diagnosis.

Anamnesis: got sick all of a sudden. The disease began with general malaise and sore throat.

Examination results: the patient was in severe condition, adynamia, pallor of the skin. The temperature was 38°C. There was dense diffuse edema of the cervical fiber to the level of the middle of the neck. The oropharynx was hyperemic with a cyanosis. The throat was swollen. The scurf had on the surface of tonsils. The scurf was a dense shiny white, he was spreading to the soft and hard palate. Regional lymphadenitis. Puls 90/min, BP-90/60.

On the 10th day of stay in the hospital, the patient had a pain in the heart, increased heartbeat. The boundaries of the heart were expanded by 1.5-2 cm, heart tones were deaf, systolic sound detected at the apex. In electrocardiography revealed a decrease in voltage.

1. Make presumed diagnosis and its justification.

2. Make a survey plan.

3. Prescribe necessary treatment.

**Topic 5** streptococcal infection, erysipelas

**Topic** 6 herpetic infection

**Topic 7 infectious mononucleosis**

*Questions for oral interview*

1. infectious mononucleosis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

2. Epstein-Barr Virus–Associated Malignant Diseases. Lymphoproliferative disease. Primary CNS lymphoma. Hodgkin’s lymphoma. Nasopharyngeal carcinoma. Burkitt’s lymphoma.

3. Other Diseases. X-linked lymphoproliferative syndrome. Сhronic mononucleosis syndrome or chronic fatigue. Нemophagocytic lymphohistiocytosis syndrome.

**Incoming control**

1. The most common cause of infectious mononucleosis is …………… ………… ………………………………

2. Epstein-Barr virus (EBV), or human herpes virus …….. , is a gamma-1

herpes virus

3. Like the other members of the Herpesviridae family, EBV has a double-stranded ………………… genome

4. There are two age group of higher incidence …………………………. …….. ………. and ……………………

5. Primary infection with EBV results from exposure to the …………….. ………….. of seropositive individuals through kissing, sharing of food, or other intimate contact

6. The …………………… has a profound influence on the clinical expression of EBV infection

7. Typical infectious mononucleosis is an acute illness characterized clinically by ………………………, ………………… and ………………

8. The administration of …………………… or …………………… produces a pruritic, maculopapular eruption in 90% to 100% of the patients

9. The central hematologic manifestation of the illness is …………………

……………………….

**Test control**

SELECT ALL THE CORRECT ANSWERS

**1. The most common cause of infectious mononucleosis is:**

1. CMV

2. Epstein-Barr virus

3. HIV

4. toxoplasmosis

**2. EBV is causally associated with the development** **of:**

1. Burkitt’s lymphoma

2. Hodgkin’s lymphoma

3. lymphomas in acquired immunodeficiency syndrome (AIDS)

4. nasopharyngeal carcinoma

5. all of the above is true

**3. Primary infection with EBV results from exposure to the:**

1. oral secretions

2. vaginal secretions

3. faeces

**4. EBV is characterized by:**

1. lifelong latency

2. persistence

3. no persistence

**5. The source of infection is:**

1. only animals

2. only human

3. animals and human

**6. Periodic reactivation of EBV - infection** **is typical for:**

1. healthy carriers

2. patients with generalized forms of the infection

3. immunosuppressed humans

**7. The mechanism of transmission is:**

1. аirborne

2. fecal-oral

3. blood-contact

**8. The virus persists in:**

1. the B-cell

2. the T-cell

3. all of the above is true

**9. Typical infectious mononucleosis is an acute illness characterized clinically by:**

1. sore throat

2. pneumonia

3. fever

4. lymphadenopathy

5. arthritis

**10. The rash in infectious mononucleosis is often caused by:**

1. the administration of ampicillin

2. the administration of tetracycline

3. the administration of amoxicillin

**11. Cervical adenopathy is usually:**

1. symmetrical

2. asymmetrical

**12. Infectious mononucleosis is more often characterized by:**

1. anterior adenopathy

2. submandibular adenopathy

3. posterior adenopathy

4. axillary adenopathy

5. inguinal adenopathy

**13. Death from infectious mononucleosis is:**

1. rare

2. often

**14. Atypical lymphocytes are the hematologic hallmark of infectious mononucleosis and account for:**

1. about 10%

2. about 30%

3. about 50%

**Task 1**

Patient C, 18, gradually felt himself ill about 10 days ago with an increase of temperature to 37.2-37.7°C, had difficulties with breathing due to nasal congestion. The general condition worsened, he almost had no appetite. The district therapist diagnosed an acute respiratory infection, prescribed tetracycline and aspirin for treatment. During therapy, the condition did not improve, the patient developed high fever to 38.5-39°C, extreme weakness, sore throat while swallowing. The patient was sent to the hospital with a diagnosis of a suspected tifo-paratyphoid disease.

On examination: the state of moderate severity. The skin is clean. There is an increase in posterior and anterior cervical lymph nodes, painless, non-soldered. There is a non-localized hyperemia in the throat, tonsils are enlarged, swollen, in the lacunae and on the surface of the tonsils there are white and yellow easily removable overlays. The liver and spleen are enlarged.

Hb-124 g/l, leukocytes 0,8\*107l, eosinophils -1 %, stab neutrophils -0 %, segmented neutrophils -20 %, lymphocytes-64 %, of which 34 %-atypical, monocytes-15 %.

1. Make presumed diagnosis and its justification.

2. What are the laboratory and clinical criteria of the disease?

3. Make a plan of treatment of the patient.

**Task 2**

Patient A., 20 years old, went to the doctor of the clinic with complaints to algor, and high temperature (above 39°C), severe weakness, severe pain in the throat while swallowing, difficulty with nasal breathing.

Having become ill 9 days ago with a fever to 38°C, the patient had a pain in the neck when moving her head. After 2 days she noted an increase in her cervical lymph nodes, they were painful. Yesterday there was a severe pain in the throat when swallowing, arthralgia, fever up to 39.5°C, a significant increase and tenderness of the posterior lymph nodes were noticed. The doctor sent the patient into the department of infectious diseases, suspected to diphtheria.

On examination: pale skin, on the skin of the abdomen, back, lower extremities there was an uninhabited spotted papular pink rash without a tendency to merge. The configuration of the neck changed due to the increase of 2.5 cm in anterior and posterior lymph nodes, lymph nodes are painful, elastic, mobile. The mucosa of the oropharynx is hyperemic, the tonsils are increased to the 2nd degree. The mucous membrane is not oedematic. In the lacunae of the tonsils, abundant white and yellow tunes, easily removed with a spatula, rubbed, the mucous in the places of rejection of the plaque does not bleed. Pulse-100/.min., BP-120/80. Abdominal palpation is soft, slightly painful in the right hypochondrium. The liver is enlarged by 3 cm from under the edge of the costal arch, sensitive to palpation, spleen protrudes 2 cm from under the costal arch, soft, painless. No meningeal signs.

1. Make presumed diagnosis and its justification.

2. What are the laboratory and clinical criteria of the disease?

3. Prescribe necessary treatment.

**Module 5 Viral hepatitis and HIV infection**

**Topic 1 enteric viral hepatitis**

*Questions for oral interview*

1. Viral hepatitis A. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

2. Viral hepatitis E. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

**Incoming control**

1. Hepatitis A is an acute viral infectious disease with ………………… mechanism of transmission

2. HAV is …………. in the exter­nal environment (stable)

3. The only source of infection is ………………………………………. 4. A diseased man is most contagious during ……………………………………, ………………………………………, …………………………………………..

5. Рresence HAV in …………… is of major epidemiologic significance

6. Seasonal rise of morbidity happens in ………………………

7. The place of HAV entry is usually ……………………………

8. The incubation period of hepatitis A is ………………………..

9. The appearance of jaundice is usually associated with ……………… of dyspeptic symptoms and other signs of general intoxication

10. The level of bilirubin of a patient with hepatitis A are …………………..

11. In the urine of a patient with hepatitis A are detected ……………………. ……………….

12. Diagnosis of hepatitis A is confirmed by the detection of……………………..

**Test control**

**SELECT ALL THE CORRECT ANSWERS**

**1. The causative agent of hepatitis A is:**

1.RNA virus

2. DNA virus

**2. HAV in the external environment is:**

1. not stable

2. stable

**3. The source of infection is:**

1. an animal, infected by HAV

2. a human, infected by HAV

3. all of the above is true

**4. HAV is detected in:**

1. feces

2. urine

3. blood

4. saliva

5. nasopharyngeal se­cretions

6. all of the above is true

**5. The most epidemiologic significance are the patients with:**

1. clinical form

2. subclinical form

3. asymptomatic form

**6. Hepatitis A is more common in:**

1. young children

2. adults

**7. Blood-borne hepatitis A is:**

1. very important in the transmission of the disease

2. not very important in the transmission of the disease

**8. In the first place is affected:**

1. protein metabolism

2. fat metabolism

3. рigment metabolism

4. vitamin metabolism

**9. Icteric stage is characterized by:**

1. a change in the colour of the urine

2. headache

3. stool becomes pale

4. jaundice

5. vomiting

**10. Subclinical or asymptomatic hepatitis A occurs:**

1. very often

2. rarely

**11. Hepatitis A is characterized by:**

1. bilirubin increased

2. bilirubin decreased

3. ALT and AST increased

4. ALT and AST decreased

5. urobilin and bile pigments are detected

**12. In hepatitis A the blood picture is characterized by:**

1. leukocytosis

2. leukocytopenia

3.lymphocytosis

4. ESR is normal

5. ESR is increased

**13. Anti-HAV IgM:**

1. is detected in patients with acute hepatitis A

2. may be related to a past infection

**14. The level of Anti-HAV IgG begins to rise:**

1. in the preicteric period

2. in the icteric period

3. in the period of convalescence

**15. Vaccination is recommended:**

1. for children at 1 year of age

2. for persons who are at high risk for complications from hepatitis A

3.for any person wishing obtain immunity

4. all of the above is true

**Task 1**

Patient E., 18, was admitted to the hospital because his mother saw that her son had developed jaundice. There were no other symptoms of the disease.

He feels well now. He has never had jaundice before. There have been no parenteral interventions for six months. There is a slight jaundice of the sclera and the skin, the liver at the edge of the costal arch is sensitive to feeling and beating.

Total blood bilirubin-140 µmol/ l, direct bilirubin-105 µmol / l. transaminase (ALAT) -4.0 µmol/l. thymol sample -19 units.

1. Make presumed diagnosis and its justification.

2. Make a survey plan.

3. Prescribe necessary treatment.

**Task2**

Patient A., 15, considers himself to be a healthy person, does not have any complaints. He was hospitalized after a clinical and laboratory examination at school because his classmate had been hospitalized with a "jaundice" diagnosis the day before. The information revealed before the examination showed that in the course of 7 or 8 days the boy had felt himself unwell, was weak, almost had no appetite, had some pain in the right hypochondrium, he vomited one time. He didn’t have his temperature measured. He did not notice the change of colour of his urine or any discoloration of feces. The survey revealed that the patient's condition was satisfactory, there was no jaundice. Under examination his pulse is 72/min, rhythmic. Liver - 1.5 cm below the rib arch, spleen - at the edge of the rib arch. Urine and feces have a normal color.

1. Make presumed diagnosis and its justification.

2. Make a survey plan.

3. Prescribe necessary treatment.

**Task 3**

Patient M., 25, has been treated by a doctor on the subject of an acute respiratory infection (nasopharyngitis) for 5 days. In the last 2 days the body temperature returned to normal state, but the state of health deteriorated - the patient lost appetite, there was an extreme weakness, a dull pain in the right hypochondrium. Тhe color of urine has become darker.

1. Make presumed diagnosis and its justification.

2. Make a survey plan.

3. Prescribe necessary treatment.

**Task 4**

Patient N., a student, on the 18th of September developed some cough and nose discharge, his temperature rose to 37.6°C. In the clinic they diagnosed an acute respiratory infection; the patient was treated with aspirin. However, the state of his health continued to deteriorate, he almost had no appetite, the patient vomited several times, also felt some nausea, heaviness in the upper abdomen, the temperature increased to 38.0°C.

At the second examination on the 22th of September the doctor revealed nausea, single vomiting, and abdominal pain. He was hospitalized into the department of infectious diseases with a diagnosis of "food poisoning".

In the emergency room the doctor diagnosed a slight jaundice of the skin, the color of urine was dark. The liver was enlarged by 3 cm from under the edge of the costal arch, sensitive to palpation. Spleen wasn't palpated. The pulse was 52/min, BP - 100/60.

From the history of present illness it turned out that similar symptoms and signs were revealed for two more people who had been together with the patient on a tourist trip.

1. Make a preliminary diagnosis.

2. Make a survey plan.

3. Prescribe necessary treatment.

**Topic 2** parenteral viral hepatitis

*Questions for oral interview*

1. Hepatitis B. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

2. Hepatitis C. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

**Case**

Patient S., 35 years old, shop assistant. Since March 1, she was in the therapeutic department of the GB for exacerbation of rheumatoid arthritis. In connection with the appearance of jaundice, on March 13, she was transferred to the infectious diseases department with a diagnosis of Hepatitis. She was not in contact with icteric patients.

On admission, there is intense yellowness of the skin, sclera, itching of the skin with scratching in the chest and extremities. The appetite is low, the tongue is coated, the abdomen is soft, the liver is +5.0 cm, sensitive to palpation. The edge of the spleen is palpated, nodding. The temperature is normal.

Pulse 56 / min., Rhythmic, BP-100/60 mm Hg, sleeps badly due to itching of the skin.

In blood tests: L - 4.2 \* 109 / l, formula without features, ESR - 8 mm / hour; total bilirubin -180 μmol / l, direct bilirubin -100 μmol / l, sublimate test -1.9, thymol test -2.5 units, blood cholesterol - 6.76 μmol / hour / l, ALT - 5.5 μmol / hour / l.

1. Your presumptive diagnosis and its rationale.

2. What examinations are necessary to confirm the diagnosis?

3. Your tactics for the treatment of cholestasis.

4. Plan of inpatient treatment.

**Topic 3** chronic viral hepatitis

*Questions for oral interview*

1. Chronic viral hepatitis B. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

1. Chronic viral hepatitis C. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

**Topic 4** HIV infection

**Initial test**

Arrange proteins (p) and glycoproteins (gp) by types of HIV viruses.

|  |  |  |  |
| --- | --- | --- | --- |
| p7, p9, p12, p16, p105, p56, gp120, gp140, gp149, gp41, p17, p24, p63, p6, p160, p55, p63, gp160, p51, p59 | | | |
| HIV-1 | HIV-2 | HIV-1 and HIV-2 | ----------------------- |
|  |  |  |  |

Questions for discussion

HIV. HIV-1, HIV-2. Еtiology. Еpidemiology. Pathogenesis. Clinical classification in Russia, India, USA. Differential diagnosis. Laboratory diagnosis.

**Topic 5** HIV infection

**Initial test**

Fill the table with syndromes and symptoms for different stages of HIV-infection

|  |  |  |  |
| --- | --- | --- | --- |
| Acute HIV-infection, local lymphadenopathy, general lymphadenopathy, asymptomatic stage, oral candidiasis, vaginal candidiasis, leukoplakia, fever (1 week), fever (1 month), fever (6 months), diarrhea (1 month), diarrhea (3 months), AIDS, TBC, herpes (1-2 times/year), herpes (3-5 times/year), toxoplasmosis. | | | |
| CD4+ cells | A | B | C |
| >500 |  |  |  |
| 200-500 |  |  |  |
| <200 |  |  |  |

**Questions for discussion**

HIV. ARVT. HIV+ patient and GP-doctor. HIV and TBC. HIV and pregnancy. HIV and Toxoplasmosis. HIV and pneomocistosis.

**№ 1**

Patient K., 35 years old, is registered as HIV”+” for the last 3 years after the detection of antibodies to HIV in the hospital, where he was treated for pneumonia. After registration he didn’t apply in the AIDS-hospital, the state of health was good. But in 2019 he appealed to the district hospital. The patient noted a periodic increase in temperature to 37.5-38,0° for the 4 weeks, chills, sweating, he lost 5 kg. During the last week began to notice the deterioration of vision, pain in the abdomen, diarrhea mixed with mucus.  
 On examination: a state of moderate severity, asthenic physique, pale skin, no rash. There is an increase in the lymph nodes of the neck, and the inguinal areas; on palpation, the lymph nodes are up to 1.5 cm, painless. The abdomen is soft, painless. Diarrhea 2-3 times/day, lasts 1 week.  
  
1. Try to indicate the stage of HIV infection for the patient  
2. Make a plan of diagnostic and plan of treatment.

**№ 2**

Patient K., 35 years old, is registered as HIV”+” for the last 11 years after the detection of antibodies to HIV. In the last week, she marks a headache, a rise in temperature to 38 ° C. The headache was growing, nausea, vomiting, a single attack of seizures appeared. The patient turned to the clinic to the therapist, examined by a neurologist. Meningeal signs are negative. The patient is sent to the hospital of infectious diseases.

1. Try to indicate the stage of HIV infection for the patient  
2. Make a plan of diagnostic and plan of treatment.

**№ 3**

Patient K., 26 years old, is registered as HIV”+” for the last 6 years after the detection of antibodies to HIV . 3 weeks ago while passing a chest X-ray, pulmonary tuberculosis was suspected.  
  
1. In which kind of hospital patient should start his treatment.

2. Make a plan of diagnostic.

**Helminthiasis Module 6**

**Topic 1 Roundworms (Nematodes)**

*Questions for oral interview*

1. Ascariasis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

2. Trichuriasis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

3. Hookworm. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

4. Strongyloidiasis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

5. Dracunculiasis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

6. Enterobiasis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

7. Trichinellosis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

8. Loiasis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

9. Filariases. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

10. Mansonellosis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

**Incoming control**

1. Ascaris lumbricoides live in the lumen of ………………………………….., primarily ……………………….

2. The diagnosis of ascariasis establishes …………………………………

……………..

3. WHO recommended use of ………………………. and …… . ……….. during pregnancy based on safety data and concluded that these drugs may be used to treat children as young as 12 months

4. Trichuris trichiura reside more often in …………………………… and …………………………

5. Human infection with the two species of hookworm …………… ………….. and ……………………………., affects more than 10% of the world’s population

6. Adult hookworms live chiefly in ………………………………………

7. N. americanusis removes …………. blood than A. duodenale

8. Following contact of human …………. with contaminated soil, filariform larvae penetrate through ………………….. and small fissures within minutes

9. Strongyloidiasis is medical importance lies primarily in its ability to produce overwhelming infection in …………………………… people, a consequence of its unique ability to replicate and increase in numbers without leaving its host

10. The drug of choice for severe, complicated strongyloidiasis is ……….

**Test control**

SELECT ALL THE CORRECT ANSWERS

**1. Ascaris lumbricoides live:**

1. in the lumen of the large intestine

2. in the lumen of the small intestine

**2. Eggs of Ascaris lumbricoides embryonate and become infective only on:**

1. water

2. air

3. soil

4. all of the above is true

**3. The mechanism of transmission of Ascariasis is:**

1. аirborne

2. fecal-oral

3. blood-contact

**4. Symptoms of pulmonary phase of Ascaris infections includ:**

1. nonproductive cough

2. chest discomfort

3. fever

4. all of the above is true

**5. Symptoms of intestinal phase of Ascaris infections includ:**

1. mild abdominal discomfort

2. severe abdominal discomfort

3. loss of appetite

4. nausea

**6. The light and asymptomatic** **Ascaris infections:**

1. should be treated

2. should not be treated

**7. Trichuris trichiura** **reside more often in:**

1. the stomach

2. the duodenum

3. the cecum

4. the ascending colon

5. the rectum

**8. Most people with trichuriasis:**

1. have a symptoms

2. have no symptoms

**9. Trichuris dysentery syndrome characterized by:**

1. vomiting

2. stool without of mucus and blood

3. stool with of mucus and blood

4. tenesmus

**10. The drugs are used for the treatment** **of the trichuriasis:**

1. ampicillin

2. albendazole

3. tetracycline

4. mebendazole

5. pyrantel pamoate

6. nifuroxazide

**11. How long are** **albendazole and mebendazole for heavy infections** **of the trichuriasis used ?**

1. 1 days

2. 3 days

3. 5 to 7 days

**12.** **N. americanusis penetrate through:**

1. gastrointestinal tract

2. respiratory tract

3. skin

4. all of the above is true

**13. Hookworm infection** **may manifest itself:**

1. a pruritic maculopapular rash

2. a transient pneumonitis

3. a transient nephritis

4. a diarrhea

5. all of the above is true

**14. The major manifestations of hookworm disease are:**

1. hyperbilirubinemia

2. iron-deficiency anemia

3. hypoproteinemia

**15. Is autoinfection typically for strongyloidiasis?**

1. Yes

2. No

**16. Clinical picture of strongyloidiasis includ:**

1. a localized, pruritic, erythematous, papular rash

2. a hemorrhagic rash

3. pulmonary symptoms with eosinophilia

4. diarrhea and abdominal pain

5. pain in joints

6. all of the above is true

**17. With disseminated strongyloidiasis, larvae are also found in:**

1. the central nervous system

2. the kidneys

3. the liver

4. all of the above is true

**18. Ulceration of the mucosa is a characteristic for strongyloidiasis:**

1. Yes

2. No

**19. Repeated stool examinations for diagnostics of strongyloidiasis are:**

1. often needed

2. rare needed

**20. Eradication of strongyloidiasis is the goal for:**

1. uncomplicated strongyloidiasis

2. complicated strongyloidiasis

3. all of the above is true

**Topic 2** cestodes

*Questions for oral interview*

1. Taeniasis. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

2. Cysticercosis. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

3. Echinococcosis. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

4. Diphyllobothriasis. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

5. Beef tapeworm infection. The route of transmission. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Principles of treatment. Anti-epidemic measures. Prevention.

**Topic 3** trematodes

**Initial test**

|  |  |
| --- | --- |
| ÐÐ°ÑÑÐ¸Ð½ÐºÐ¸ Ð¿Ð¾ Ð·Ð°Ð¿ÑÐ¾ÑÑ Ð¿ÐµÑÐµÐ½Ð¾ÑÐ½ÑÐ¹ ÑÐ¾ÑÐ°Ð»ÑÑÐ¸Ðº | Liver fluke |
| Nosology |  |
| source of infection |  |
| mechanism of infection |  |
| factors of transmission |  |
| clinical syndromes |  |
| Diagnostic |  |
| Prophylaxis |  |

|  |  |
| --- | --- |
| ÐÐ°ÑÑÐ¸Ð½ÐºÐ¸ Ð¿Ð¾ Ð·Ð°Ð¿ÑÐ¾ÑÑ ÐÐ¾ÑÐ°ÑÐ¸Ð¹ ÑÐ¾ÑÐ°Ð»ÑÑÐ¸Ðº | Cat fluke |
| Nosology |  |
| source of infection |  |
| mechanism of infection |  |
| factors of transmission |  |
| clinical syndromes |  |
| Diagnostic |  |
| prophylaxis |  |

|  |  |
| --- | --- |
| image376 | Pulmonary fluke |
| Nosology |  |
| source of infection |  |
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| factors of transmission |  |
| clinical syndromes |  |
| Diagnostic |  |
| prophylaxis |  |

Questions for discussion

1. Opistorhosis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.
2. Fasciollosis. Еtiology. Еpidemiology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.
3. Paragonimosis. Еtiology. Еpide miology. Pathogenesis. Clinic. Differential diagnosis. Laboratory diagnosis. Тreatment. Prevention. Anti-epidemic measures.

**№1**

Patient Z., 27 years old. Within 5 months, complaints of general weakness, nausea, pain in the right side of abdomen, taste of bile in the mouth. During the illness the patient lost up to 3 kg. of weight. In CBC - eosinophilia (18%), other cellular indicators are normal. In epidemic anamnesis there was frequent consumption of river fish.

1. Make a preliminary diagnosis

2. Make a plan of diagnostic and plan of treatment.

**№2**

Patient A., 25 years old. He entered the hospital on the 5th day of the disease. Complaints of general weakness, headache, loss of appetite, jaundice of the sclera and skin. 5 days ago there was a temperature of up to 38.5 °, headache, general weakness, aching joints. By the 5th day, the patient noticed jaundice of the skin and turned to the infectious diseases hospital.  
  Objectively: Temperature 39.5 °, moderate condition. Skin and sclera jaundiced. Heart sounds rhythmic, pulse 90 / minute, vesicular respiration in the lungs. The abdomen during palpation is painful in the right side. The liver is dense and sensitive, up to 3 cm from the costal arc with a sharp, even edge. There are no meningeal signs. The osteo-articular system is normal.  
 CBC: leukocytes - 15.7 × 109, eosinophils - 40%, ESR — 19 mm / hour. Total bilirubini - 98 µmol /l, AlAT - 125 units / l.

1. Make a preliminary diagnosis

2. Make a plan of diagnostic and plan of treatment.

**Questions for testing the theoretical knowledge of the discipline**

1. **Influenza**: etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, prophylaxis

2. **Сholera**: etiology, epidemiology, diagnostics, treatment, complications, prophylaxis

3. **Acute respiratory diseases**: etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, prophylaxis

4. **Botulism:** etiology, epidemiology, diagnostics, treatment, complications, prophylaxis

5. **Meningococcal infection:** etiology, epidemiology, pathogenesis, clinical classification, clinical symptoms and syndromes, prophylaxis

6. **Yersiniosis:** etiology, epidemiology, diagnostics, treatment, complications, prophylaxis

7. **Diphtheria:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, prophylaxis

8. **Shigellosis:** etiology, epidemiology, diagnostics, treatment, complications, prophylaxis

9. **Streptococcal infection - angina:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

10. **Streptococcal infection - erysipelas:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

10. **Typhoid fever:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, prophylaxis

11. **Typhoid fever:** etiology, epidemiology, diagnostics, treatment, complications, prophylaxis

12. **Herpetic infection - chickenpox (VZV):** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

13. **Salmonellosis:** etiology, epidemiology, pathogenesis, clinical classification, clinical symptoms and syndromes, prophylaxis

14. **Herpetic infection - shingles (VZV):** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

15. **Herpetic infection - infectious mononucleosis (EBV)**: etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, prophylaxis

16. **Viral diarrhea:** etiology, epidemiology, diagnostics, treatment, complications, prophylaxis

17. **Viral hepatitis A:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, prophylaxis

18. **Poliomyelitis:** etiology, epidemiology, diagnostics, treatment, complications, prophylaxis

19. **Acute viral hepatitis B:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

20. **Antrax:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, prophylaxis

21. **Сhronic viral hepatitis B:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

22. **Plague:** etiology, epidemiology, diagnostics, treatment, complications, prophylaxis

23. **Acute viral hepatitis C:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

24. **Сhronic viral hepatitis C:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

25. **Human immunodeficiency virus (HIV):** etiology, epidemiology, pathogenesis, clinical classifications, prophylaxis

26. **Human immunodeficiency virus (HIV):** epidemiology, antiretroviral therapy (ARVT), prophylaxis

27. **Human immunodeficiency virus (HIV):** epidemiology, clinical symptoms and syndromes, diagnostics, prophylaxis

28. **Food borne infection (food toxic infection):** etiology, epidemiology, diagnostics, treatment, complications, prophylaxis

29. **Food borne infection (food toxic infection):** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, prophylaxis

30. **Spotted fever:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

31. **Сat fluke - chronic opisthorchiasis:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

32. **Сat fluke - acute opisthorchiasis:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

33. **Enterobiosis:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

34. **Escherichiosis:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

35. **Сysticercosis:** etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

36. **Tularemia:** etiology, epidemiology, pathogenesis, clinical classification, clinical symptoms and syndromes, prophylaxis

37. **Tick-borne encephalitis:** etiology, epidemiology, diagnostics, treatment, complications, prophylaxis

38. **Amoebiasis:** etiology, epidemiology, diagnostics, treatment, complications, prophylaxis

39. **Ascariasis:** etiology, epidemiology, diagnostics, treatment, complications, prophylaxis

40. **Dracunculiasis:** etiology, epidemiology, pathogenesis, clinical symptoms, diagnostics, treatment, prophylaxis

41. **Вrucellosis**: etiology, epidemiology, clinical symptoms, diagnostics, treatment, complications, prophylaxis

42. **Leptospirosis**: etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, prophylaxis

**Tasks for testing practical skills in the discipline**

1. Situational task. Typhoid fever.

2. Situational task. Salmonellosis.

3. Situational task. Shigellosis.

4. Situational task. Escherichia coli.

5. Situational task. Pseudotuberculosis

6. Situational task. Rotavirus infection

7. Situational task. Cholera

8. Situational task. Botulism

9. Situational task. The plague.

10. Situational task. Tularemia

11. Situational task. Brucellosis

12. Situational task. Rabies

13. Situational task. Tick-borne encephalitis.

14. Situational task. Polio

15. Situational task. Leptospirosis

16. Situational task. Epidemic typhus

17. Situational task. Flu

18. Situational task. Meningococcal infection

19. Situational task. Diphtheria

20. Situational task. Mug

21. Situational task. Herpes infection

22. Situational task. Infectious mononucleosis

23. Situational task. Hepatitis A

24. Situational task. Hepatitis B

25. Situational task. Hepatitis C

26. Situational task. HIV infection

**Tests**

# Shigella is:

virus

bacteria

protozoa

all answers are correct

# Bacterial dysentery (shigellosis) is fecal-oral intestinal infection, characterized by:

the lesion of the respiratory tract

distal colitis

meningitis

jaundice

# Mechanism of transmission of Bacterial dysentery is:

airborne

fecal-oral

transplacental

blood-contact

# The maximum incubational period of Bacterial dysentery is:

3 days

5 days

7 days

10 days

# Symptoms of shigellosis include:

acute bloody diarrhea

crampy abdominal pain

tenesmus

passage of mucus

all answers are correct

# Entamoeba histolytica is:

virus

bacteria

protozoa

all answers are correct

# Extraintestinal amoebiasis includes hematogenous amoebic abscesses in:

liver

lungs

brain

all answers are correct

# Primary sources of Escherichioses and play the most important role in the spreading of the disease are patients with:

mild forms

abortive forms

bacillicarriers

all answers are correct

# The maximum incubational period of Escherichioses is:

3 days

5 days

7 days

10 days

# The differential diagnoses of ETEC include:

rotavirus infection

Norwalk virus infection

сholera

all answers are correct

# EHEC may cause:

bloody diarrhea

hemolytic-uremic syndrome

kidney failure without fever

all answers are correct

# Hemolytic uremic syndrome defined by:

hemolytic anemia

thrombocytopenia

renal failure

all answers are correct

# The most frequent mechanism of transmission of Rotavirus infection is:

faecal-oral

airborne

transplacental

blood-contact

# Rotavirus infection is most frequently associated with:

affection of gastrointestinal tract

usually a short febrile period

mild general intoxication

all answers are correct

# Sick persons or carriers release Rotaviruses:

in feces

in CSF

in blood

in urine

# The following groups are considered to be at high risk of Rotavirus infection:

children in the children's facilities

children in hospital wards

parents of the sick children

all answers are correct

# Rotaviruses affect primarily epithelial cells:

in the large intestine

in the small intestine

in the kidneys

in the lungs

# Y. enterocolitica is most frequently associated with:

mesenteric lymphadenitis

acute diarrhea

terminal ileitis

all answers are correct

# As a foodborne pathogen, Y. enterocolitica can efficiently colonize and induce disease:

in the distal intestine

in the small intestine

in the lung

all answers are correct

# Indications for antibiotic therapy are:

severe clinical presentation

elderly patients

immunocompromised patients

all answers are correct

# Y. enterocolitica is often resistance to:

ciprofloxacin

ampicillin

tetracycline

all answers are correct

# The causative agent of typhoid fever refers to:

virus

rickettsia

chlamydia

bacteria

# The source of infection for typhoid fever is:

bird

animal

human

mosquitoes

# The duration of the incubation period for typhoid fever is (days):  
1-3

7-25  
7-14  
14-28

# A specific complication of typhoid fever is:  
nephrite  
perforated peritonitis  
endocarditis  
pancreatitis

# A rash in the abdominal giff appears on:  
1-3 day of illness  
4-7 days of illness  
8-10 day of illness  
after 14 days of illness  
# For early diagnosis of typhoid fever apply:  
blood culture  
seeding bile  
urine culture  
Vidal reaction

# A characteristic symptom of typhoid fever is:

bradycardia  
papular rash  
rhinorrhea  
polyadenopathy

# The mechanism of infection with typhoid fever:

transmissive

aspiration

fecal-oral

parenteral

# Causative agent of typhoid fever:

salmonella typhi

gram-positive

doesn't have flagella

forms spores

# In the pathogenesis of food toxicoinfections, all of the above, except  
local action of toxins in the gastrointestinal tract  
general Toxic Syndrome  
violations of the synthesis of biologically active substances  
development of autoimmune reactions  
development of gastroenteritis  
# For salmonellosis, the source of the pathogen is:

infected bird  
ducks, geese, pigeons  
rats  
infected person  
infected animals, birds, people  
# In the pathogenesis of salmonellosis plays a leading role:  
intensive reproduction of the pathogen in the intestine  
general and local action of endotoxin  
development of dehydration  
damage to the cardiovascular system  
bacteremia

# The main sources of Salmonella infection  
cattle  
pigs, sheep, ducks, chickens  
patient or carrier  
all of the above  
# The criteria for the severity of illness with salmonellosis are all of the above, except  
fever  
expressions of intoxication  
chair frequency  
duration of the incubation period  
toxic myocardial damage  
# The epidemiology of foodborne diseases is characterized by all of the above, except  
pathogens are ingested from the external environment.  
the way of infection alimentary  
often occur in the form of flashes.  
possible parenteral infection  
# Differentiate poisoning from poisonous fungi from food toxicoinfection allows  
nausea, vomiting, frequent loose stools  
 water electrolyte disturbances  
abdominal pain  
early increase and tenderness of the liver, jaundice  
headache, dizziness, weakness, hypotension  
# The Polioviruses are:

very stable in the external environment

resistant to low temperature, freezing and desiccation.

not destroyed by digestive juices

not sensitive to the action of the known antibiotics

all answers are correct

# According to the Global Polio Eradication Program polio remains endemic now in countries:

Nigeria

Afghanistan

Pakistan

all answers are correct

# Poliomyelitis may be divided into the following forms:

spinal

bulbar

encephalitic

all answers are correct

# The causative agent of leptospirosis are:  
viruses  
bacteria  
protozoa  
 spirochetes  
# Leptospirosis is characterized by seasonality:  
 spring and summer  
autumn  
winter and spring  
spring  
# Source of infection with leptospirosis:  
 livestock, rats  
foxes, wolves  
camels  
person  
# The main mechanism of transmission of leptospirosis:  
fecal-oral  
airborne  
 urine oral  
parenteral  
transmissible  
# The most common route of transmission of leptospira:  
 water  
transmissible  
parenteral  
airborne

# Diphtheria is:

anthroponosis

anthropozoonosis

zoonosis

all answers are correct

# The severest forms of the disease cause:

C. diphtheriae gravis

C. diphtheriae mitis

C. diphtheriae intermedius

all answers are correct

# The source of Diphtheria is:

human

birds

mice

pigs

# Epidemiologically, patients are more dangerous with next form of Diphtheria:

moderate form

abortive form

severe form

all answers are correct

# Mechanism of transmission of Diphtheria is:

аirborne

fecal-oral

blood-contact

transplacental

# The major pathogenicity determination of C. diphtheriae is:

bacterial cell wall

endotoxin

exotoxin

all answers are correct

# In the toxic faucial diphtheria of the first degree edema of subcutaneous tissue spreads:

to the clavicle

to the second cervical fold

below the clavicle

all answers are correct

# In the toxic faucial diphtheria in the second degree edema of subcutaneous tissue spreads:

to the clavicle

to the second cervical fold

below the clavicle

# In the toxic faucial diphtheria of the third degree edema of subcutaneous tissue spreads:

to the clavicle

to the second cervical fold

below the clavicle

# . In the toxic form of the pharyngeal diphtheria toxin severely affects:

the nervous system

the cardiovascular system

CNS

all answers are correct

# In the larynx, trachea and bronchi of the patient with diphtheria the membranes are:

not closely connected with the underlying tissues

closely connected with the underlying tissues

all answers are correct

all answers are not correct

# In the tonsils, palatine arches, uvula, other parts of the oral cavity of the patient with diphtheria the membranes are:

not closely connected with the underlying tissues

closely connected with the underlying tissues

all answers are correct

all answers are not correct

# The most common cause of infectious mononucleosis is:

CMV

Epstein-Barr virus

HIV

toxoplasmosis

# Epstein-Barr virus is causally associated with the development of:

Burkitt’s lymphoma

Hodgkin’s lymphoma

lymphomas in acquired immunodeficiency syndrome (AIDS)

nasopharyngeal carcinoma

all answers are correct

# Primary infection with Epstein-Barr virus results from exposure to the:

oral secretions

vaginal secretions

faeces

all answers are correct

# Epstein-Barr virus is characterized by:

lifelong latency

persistence

all answers are correct

all answers are not correct

# Periodic reactivation of Epstein-Barr virus- infection is typical for:

healthy carriers

patients with generalized forms of the infection

immunosuppressed humans

all answers are not correct

# The mechanism of transmission of Epstein-Barr virus- infection is:

аirborne

fecal-oral

blood-contact

all answers are not correct

# Typical infectious mononucleosis is an acute illness characterized clinically by:

sore throat

fever

lymphadenopathy

all answers are correct

# Atypical lymphocytes are the hematologic hallmark of infectious mononucleosis and account for:

about 5%

about 10%

about 30%

about 50%

# Meningococcal infection includes clinical forms:

meningococcal nasopharyngitis

meningococcal meningitis

meningococcemia

all answers are correct

# The most important role in the spread of Meningococcal infection play:

healthy carriers of N. meningitidis

patients with meningococcal meningitis

patients with meningococcemia

all answers are correct

# The maximal incubation period in meningococcal infection is:

5 days

7 days

10 days

14 days

# The most severe complication of the meningococcal infection is:

a pneumonia

a toxic shock

a pulmonary edema

all answers are not correct

# Quarantine to meningococcal infection must be imposed:

on the 5th day

on the 7th day

on the 10th day

on the 14th day

# The typical rash in meningococcal infection is:

papular

hemorrhagic with necrosis in the center of this macula

roseolous

all answers are not correct

# Examination of the CSF of the patient with meningococcal infection shows:

glucose level is low

increased neutrophilic cytosis

protein concentration increases

all answers are correct

# Etiological diagnosis of the meningococcal infection is made:

after bacteriological investigations

after polymerase chain reaction

after immunological tests

all answers are correct

# The source of hepatitis A is:

an animal, infected by HAV

human, infected by HAV

all answers are correct

all answers are not correct

# HAV is detected in:

feces

urine

blood

saliva

all answers are correct

# In the first place in a patient with hepatitis A is affected:

protein metabolism

fat metabolism

рigment metabolism

vitamin metabolism

# Icteric stage in a patient with hepatitis A is characterized by:

a change in the colour of the urine

stool becomes pale

jaundice

all answers are correct

# Hepatitis A is characterized by:

bilirubin increased

ALT and AST increased

urobilin and bile pigments are detected in urine

all answers are correct

# In hepatitis A the blood picture is characterized by:

leukocytopenia

lymphocytosis

ESR is normal

all answers are correct

# The level of Anti-HAV IgG begins to rise:

in the preicteric period

in the icteric period

in the period of convalescence

all answers are not correct

# Vaccination hepatitis A is recommended:

for children at 1 year of age

for persons who are at high risk for complications from hepatitis A

for any person wishing obtain immunity

all answers are correct

# Symptoms of pulmonary phase of Ascaris infections include:

nonproductive cough

chest discomfort

fever

all answers are correct

# Symptoms of intestinal phase of Ascaris infections include:

mild abdominal discomfort

loss of appetite

nausea

all answers are correct

# Trichuris trichiura reside more often in:

the stomach

the duodenum

the cecum

the rectum

# The drugs are used for the treatment of the trichuriasis:

albendazole

mebendazole

pyrantel pamoate

all answers are correct

# With disseminated strongyloidiasis, larvae are also found in:

the central nervous system

the kidneys

the liver

all answers are correct

# With what diseases is it possible to conduct a differential diagnosis of tick-borne encephalitis:  
shigellosis  
Lyme disease  
Brill's disease  
viral hepatitis  
# Carrier of tick-borne encephalitis viruses are:  
ixodic tongs  
mosquitoes  
fleas  
lice  
# Brill-Zinsser disease is a relapse:  
typhoid fever  
typhus  
relapsing fever  
lime borreliosis  
# Specific methods of diagnosis of tick-borne encephalitis:  
virological  
hemoculture  
biological  
bacteriological examination of liquor.  
# Choose a drug for the etiotropic treatment of tick-borne encephalitis:  
penicillin  
specific gammaglobulin  
ribavirin  
meronem  
# An infected tick (TBEV) remains infectious:  
several days  
few weeks  
from 1 to 3 months  
up to 1.5-2 years  
# At the site of tick bite, primary affect appears as:  
 microscopic cells of black color and reaction of regional lymph nodes  
red spots  
capsules  
vesicles  
# For the epidemiology of typhus true statements:  
the source of infection is a sick person  
mosquitoes are the carriers  
disease susceptibility low  
characterized by summer seasonality.  
The causative agent of tick-borne encephalitis is:  
DNA virus  
RNA virus  
prion  
plasmodium  
# For the initial period of typhus is characterized by:  
normal body temperature  
scleritis  
spots Chiari Avtsyna  
hyperemia of the mucosa of the oropharynx  
# The source of infection for tick-borne encephalitis is:  
granary mites  
people with tick-borne encephalitis  
ixodic tongs  
people are virus carriers  
Complications of tick-borne encephalitis include:  
epileptic syndrome  
encephalitis  
polio  
serous meningitis  
# Tick-borne encephalitis has the following clinical manifestations:  
catarrhal phenomena in the throat  
intoxication syndrome  
oliguria  
diarrhea  
# Specific prevention of tick-borne encephalitis:  
conducted according to epidemic indications  
held by live or vaccine  
is an emergency prevention  
not carried out  
# Indicate the source of infection for typhus:  
patient with typhus  
cootie  
tick-borne typhus  
typhoid fever  
# For which of the listed diseases is Rosenberg symptom characteristic:  
typhoid fever  
typhus  
yersiniosis  
pseudotuberculosis  
# What is the reason for the development of hypotension in typhus:  
 myocarditis  
lesion of the vasomotor center  
hemorrhage in the adrenal cortex  
motor lesion neuron  
# Indicate the complication characteristic of typhus recovery:  
meningoencephalitis  
psychosis  
pneumonia  
thromboembolism  
# The main factor in the pathogenesis of typhus is:  
ricketcemia  
toxinemia  
auto allergy  
immunosuppression  
# Immunity after typhus is:  
passive acquired  
passive natural  
active natural  
active artificial

**Example of an exam assignment**

**I.** Test case №1

**II.** Shigellosis: etiology, epidemiology, diagnostics, treatment, complications, prophylaxis

**III.** Human immunodeficiency virus (HIV): etiology, epidemiology, pathogenesis, clinical classifications, prophylaxis

**IV.** Enterobiosis: etiology, epidemiology, pathogenesis, clinical symptoms and syndromes, diagnostics, treatment, complications, prophylaxis

**V.** Task 1.

**VI.** Task 2.