

**MINISTRY OF PUBLIC HEALTH OF UKRAINE
KHARKIV NATIONAL MEDICAL UNIVERSITY
DEPARTMENT OF INFECTIOUS DISEASES**

WORKBOOK

**FOR PRACTICAL STUDIES
ON INFECTIOUS DISEASES**

STUDENT NAME _____
GROUP N _____

**MINISTRY OF PUBLIC HEALTH OF UKRAINE
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**WORKBOOK
for practical studies
on the course of infectious diseases
for the foreign faculty students
of the V year of education**

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INSTRUCTION ON A LABOUR PROTECTION during the work with the patients on contagious infectious diseases

GENERAL REQUIREMENTS OF LABOUR PROTECTION.

At maintenance of infectious patients a personnel and students are in the danger of infection in various routes – through the air, water, hands, patient's biological liquids etc.

The purpose of this instruction is to shut out of infection distribution both in the hospital and outside and to prevent infection not only in the medical students, who take part in a physical examination and treatment of infectious patients, but also in the members of their families.

To work in an infectious department persons are assumed:

- reaching the age of 18 years;
- passing physical examination and without medical contra-indications;
- passing instructing on rules of labour and fire-prevention safety protection.

Influence of such dangerous factors is possible during the work of the medical students with infectious material: infected air, liquids, food, objects surfaces, and material, infected or suspicious on an infection with causative agents of infectious diseases, including HIV, *Mycobacterium tuberculosis*, causative agents of emergency infections.

REQUIREMENTS OF SAFETY BEFORE THE BEGINNING OF WORK:

Coming on studies, a student must take off the personal clothes and shoe, dress an protective clothing, special shoe and personal protection equipment (mask, medical cap, medical glove etc.).

During the work in an infectious department **CATEGORICALLY FORBIDDEN:**

- to proceed to work (to studies) in the state of alcoholic or narcotic intoxications;
- to proceed to work (to studies) at presence of infectious disease.
- to appear in a department without protective clothing or to take it off.
- to go out outside department in protective clothing or to put on an outerwear over an protective clothing.
- to meal in a department.
- to sit down on the bed of a patient.
- to take away from a department patient's personal things, food, protective clothing, medical instruments and devices.

If an accident happened – to give the first medical aid to the victim, to inform the direct supervisor about happening, and in non-studying time to inform the duty doctor of admission department, and if necessary to call an ambulance.

INTRODUCTION

The purpose of practical course of infectious pathology is learning main nosological forms including questions of etiology, epidemiology, pathogenesis, clinic and prevention of these diseases. It is necessary to remember, that the key factors for early infectious diseases' diagnostics are detailed and informative anamnesis and objective status. The best way to learn how to take a detailed, informative and useful history is by practice and experience. Every effort should be made to ensure that the patient is relaxed, comfortable and easy. No leading questions should be asked and no suggested answers should be given. All the questions should be neutral and the patient should be encouraged to give reckoning of his or her own words as to what exactly the trouble is.

The student should remember that each patient is unique. Even the most standard symptoms will manifest themselves in completely different ways in different patients. The circumstances at work or at home may be very relevant to symptoms. The most important thing is that, each patient will have an entirely individual response to symptoms. One patient may tolerate pain unflinchingly while others make much fuss over minor discomfort. Some are withdrawn while others are frankly theatrical.

A calm, gentle, kind but serious approach usually means trust and cooperation, even when an elderly patient is examined by a young medical student. Out bursts of emotion by the patient during interviews are usually beneficial and the ability of the doctor to manage and not react to a period of anger scores many points in the patient's estimation of the doctor. It is always of benefit to a patient to be able to cry during an interview, in which case the doctor should not recoil or become worried but should gently touch and reassure the patient, the passing of a handkerchief or paper tissue to try the eyes is usually appreciated. The patient should never feel that the doctor is disapproving or a moralist. Because of the developing epidemic of AIDS it will probably become increasingly important to inquire delicately into each patient's usual sexual practice. Such information can only be obtained when a relationship of trust has developed.

Good communication between doctor and patient is vital. No medical terms should be used that the patient cannot understand. The instructions should be clear and simple. Instructions for undressing for clinical examination you may wish to examine certain parts of the body by hands or instrument and you must prepare your patient for this. Doctor has to explain the position to patient. Notice the constant reassurance the doctor gives to patient. Don't walk out of the room leaving your patient unsure of what to next.

It's now recognized that it's quite difficult for patients under stress to take in a lot of information. All patients need to be reassured no matter of their complaint is trivial or life-threatening. It is a complex subject and it is not limited by verbal communication. The physical presence of doctor can matter: his appearance, manner, attitude and intonation everything plays a part.

A student must learn the theoretical course of infections; acquire practical skills of infectious patient examination, master semiotic and diagnostic of infectious diseases. But the main task of this course is the development in your ability for clinical thinking.

Working at the Department of Infectious Diseases, the student must attend all lectures, and have their summary. For practical studies they must have uniform, phonendoscope and changed footwear. The student should carry out the rules of hygiene.

CASE HISTORY

The student should understand that "History of present case" is a medical, juridical and scientific document. And that is why doctor fills in this paper with attention. This view of work is one of the main parts of doctor's responsibilities, which is a guarantee of successful diagnostic and therapeutic measures. The doctor should write about the effectiveness of treatment, clinical peculiarities.

The filling of checklists or flow sheets is probably better and certainly quicker than traditional system of writing on a blank sheet of paper but this way is not optimal for understanding of full information and diagnostic process. The history, physical findings, differential diagnosis, and investigations undertaken should be documented in a clear and logical way. All investigations should be recorded in the notes. If the patient is admitted, accurate and clear documentation of all decisions, administrations, investigations and patient's progress are essential. The case records need to be readable, short and well ordered. They should include the information on what the patient and / or the patient's relatives have been told. It's wise to include in a prominent position the event of this patient's sudden collapse and this will be extremely useful to night nursing staff and covering doctors. This last point is controversial and not all physicians would agree.

On discharge from the hospital the patient's general practitioner must be informed (sometimes by telephone) and details given of the final diagnosis and discharge treatment. This should be followed as soon as possible by a full discharge summary, which should be above all succinct.

SCHEME OF THE CASE HISTORY

I. Personal data

Name, family name, surname, age, occupation, place of residence. Date of birth. Date and time of admission to hospital. Where and who sent (from a hostel, house, railway station, etc.; by relatives, emergency, etc.)

II. Complaints

Every student has to take into account both primary and secondary complaints. After that, a student ought to give a wide explanation of complaints. Characteristics of these complains should be done.

III. Anamnesis morbi

A student should describe the course of the disease development (patient's interview). The student should ask: When did it begin? How did it begin? What was the first? How long? The student should find out what the beginning of this case (acute or gradual) was. Further development of disease (temperature, consciousness, headache, vomiting, sleeplessness, rash etc.).

All the symptoms should be written in chronological order. Home treatment, its effectiveness.

IV. Anamnesis epidemica

The student has to ask a patient about the possible ways of infection. This part of clinical examination of the patient is extremely important in infectious pathology, because every infection has own epidemiological features. There are four groups of infections (intestinal infections, respiratory infection, blood infections and skin infections). Every group of these infections has different ways of spreading, "entrance gates" and system of organs, which are affected by it. Intestinal infection has three ways of spreading, by water, by food, by contact dirty hands. These objects usually are contaminated by microbes and viruses, which cause intestinal infections. The process of patient's contamination takes place through the mouth and gastrointestinal tract. Causes of these disease effect gastrointestinal tracts.

Respiratory infection also penetrates to human organism via mouth and throat. But after that viruses get to trachea, bronchi and lungs. The injuries appear in this region. The main way of spreading is airdrop or airdust.

The bigger part of blood infections is transmissible diseases. They have insects, which transmit these infections from person or animal to person. Some of them can be spread by infected blood, serum or other biological liquids.

1. Contact with infected patients (who have a temperature). There are cases of infection in a family, in a flat, at a neighborhood (in a house), or at work, at a place of study. Contact with home or wild animal (birds, rodents).
2. How long has he been living in Kharkiv? Where is he from?
3. Any mission or other trips from Kharkiv (during 2-3 weeks before illness). When did he come to? Where was he?
4. Nourishment (where does he eat? Regular or irregular)
5. Water supply.
6. Vaccination (chicken pox, measles, rubella (German measles, typhus abdominis, diphtheria, other infections, reaction to infection of vaccine).
7. Epidemic situation in the region, where the patient lives.
8. (Are there any epidemic or endemic diseases).
9. Swimming in any lakes, rivers, etc. The work on hay- making or threshing of grain. Any bite of rats, dogs, cats, etc. Any stings of ticks, mosquitoes.
10. Has he ever been to endemic country?
11. Work in slaughterhouse, poultry or cattle breeding farms.
12. Traumas, overcools, overtiredness.
13. For many infections, information about parental infections is very important because this fact can help to make a diagnosis. A student should ask about any hemotransfusions, drug-abusing, intravenous injections, appointment of dentists or something else.

V. Anamnesis vitae (Previous medical history)

After detailed describing a problem and asking specific direct questions about every system, previous patient's history should be taken.

1. What diseases has he had? (since childhood)
2. "Children infections" (measles, rubella (German measles), chicken pox, mumps (viral parotitis), scarlet fever). Acute intestinal infections. (typhus abdominis, typhus exentericus, dysentery, viral hepatitis, others infections). Tuberculosis, worm invasion.
3. Conditions living . (nutrition , dwelling , professional harmfulness (conditions of work).
4. Family history : family history can be extremely important in many diseases.
5. Has he ever had injection of any serum? When? What reaction?
6. Has he ever had any reaction to antibiotics, sulfonamides, or other remedies.
7. Bad habits (alcohol, drug abuse, smoking).
8. Diseases or state of health of patient's parents, relatives.

VI. Status praesens objectivus

The physical examination is very much secondary to a careful and complete history taking. Most diseases can be diagnosed on the history alone and sometimes physical examination can be completely normal. The first impression while on meeting a patient can give important clues and indeed may be diagnostic. The patient's gait on coming into the consulting room should be carefully observed. When the patient walks enters the consulting room there may be an immediate, striking abnormality such as jaundice, cyanosis or severe weakness.

It does not matter whether every system is examined separately or whether the patient is approached from the top of the head and then examined down to the toes, provided whichever system that is preferred by the physician is adhered to regularly and systematically. The general technique of examination of each system or organs by inspection, palpation, percussion and auscultation should be used. Inspection should be done in good natural light. Palpation should always be gentle, especially of the patients with typhoid fever. During palpation a doctor should talk to a patient, it can

be useful in relaxing them and relieving tension in the abdomen. Percussion is most commonly used in the examination of the chest, it is also used for revealing for ascites, estimating the actual size of the liver and also for confirming the absence of splenomegaly by finding resonance along the left ninth intercostals space.

The patient's height and weight should be recorded. Temperature should be recorded orally and should be 37°C. But sometimes it can be taken under armpit, and in this region it should be 36.6-36.9°C. The most important measurement is initial assessment, including heartbeat and respiratory rate, blood pressure and temperature. It should be done because many infectious diseases are acute process and that is why the patient's condition can change very fast. Particularly, if the patient is acutely ill or shocked, then a quick general assessment of his condition, including the examination of some important vital signs should be made and immediate resuscitation undertaken. Shocked patients look collapsed, weak and confused. Dehydrated patients have sunken eyes, a dry tongue and their skin have lost its normal elasticity. At the beginning of physical examination, a student should write the date of a patient's admission, temperature and findings of examination in the following order:

1. General condition of patient: satisfactory, middle grave, severe, very severe. Student should explain this condition and what is it caused; intoxication, heat and lung failure, edema of brain etc. Consciousness (clear, sopor, stupor, coma); delirium (characteristic, and contents); adynamia, excitement, euphoria, movementable anxiety, orientation in time, place and personality, peculiarities of contact, aggressiveness; voice, speech (if there are changes, describe them). a) deranged - the patient is confused, gives adequate, but delayed answers; b) stupor - the patient cannot orient himself to the surrounding, gives inadequate answers, the reflexes are decreased; c) sopor - the patient is in condition of a deep sleep, when called loudly the patient reacts by movements of eyes, and by the moan, reflexes are slack; d) coma - the patient is in the state of the full loss of consciousness with complete absence of response to external stimuli, with the absence of reflexes; e) excitement; f) delirium.

2. Position: active; passive (to indicate what posture); forced - standing position; sitting - with a rest on the hands, with a rest on the hands, with lean forward, squat; lying position - the supine posture with a rest on the back of the head and heels, with high head of the bed, the prone position, on the right side, on the left side, on the side with back thrown back and the thighs and legs flexed on the abdomen; knee - elbow posture; uneasy; irritative - the patient tosses in the bed., active with restriction. Face (masklike, calm, indifferent, suffered etc); height, weight nutrition (poor, obesity, sufficient, cachexia).

3. Skin and mucous tissue: dryness, wetness (sweatiness), color (normal, pale, yellow, cyanosis, hyperemia); visible mucosal membranes and conjunctiva: color, enanthema, skin turgor, scars, scratch;

Rash: characteristic (rose spot, papulae, macula, vesicle, pustule, bulla or blister, erythema, petechia, bruise), localization, time of appearance, background around elements.

4. Lymphatic system: lymphatic glands submandibular, cervical, cubital, axillaries, groin (size, tenderness, mobility, painfulness, soldered in pack), periadenitis, etc. Palpation of thyroid gland impalpable; palpable (to indicate location);

- Size: don't enlarged; enlarged - like a peas, plum, apple (____ cm.)
- Symmetry: symmetric, asymmetric.
- Density: soft, elastic, dense, hard.
- Surface: smooth, rough.
- Tenderness: painless, tenderness (to indicate).
- Painfulness: mobile, commensured between themselves, commensured with tissues.
- Skin over the lymph nodes: changed, edematous, hyperemic, blue, hot.

5. Muscles and bones. Pattern of joint involvement (form, deformation, ankylosis, painfulness bursitis, tendovaginitis)

- Shape (size): ordinary; increase.
- Symmetry.
- Deformations without visible deformation; large, small (to indicate which exactly).
- The skin over joints; changed; hyperemic, edematous, hot, cyanotic (hemorrhage), muscles (level of development, force, atrophy).
- Muscles (level of development, force, atrophy). Hands - liver palms or clubbing.

6. Cardio-vascular system: the shape of the thorax ("pigeon breast", coarctation of aorta), palpation of epigastria and jugular regions, arterial palpation, systolic murmur, apex beat. Localization and form of apex beat. The pulse - palpation on both radial arteriae. The rate, rhythm, character and volume. Abnormal pulses: rare (*rarus*), frequent (*frequens*), high (*altus*), small (*parvus*), collapsing pulse (*filiformis*), slow (*tardus*), bisferian pulse, *pulsus alternans*, *pulsus paradoxus*, *pulsus dicrotus*. Asymmetry of pulse, deficit, correlation between temperature height and pulse rate (relative bradycardia, conformity and tachycardia). Blood pressure.

7. Respiratory system: breathing (free, difficult (stridor), nose- secretion (characteristic and quantity), running nose, nose bleeding, hyperemia of nose mucosal tissue:

Cough (*tussis*) - dry, with phlegm (sputum) (color, smell and quantity). Condition of nasopharynx. Tonsils- hypertrophy, purulent blocking, furs, (characteristic) and swelling.

Breathlessness (dyspnoea)- inspiratorial, expiratorial, mixed. Shape of chest- cylindrical, flat and cask like. Symmetry of breath moving. Rate of breathing. Type of breathing (chest, abdominal, mixed).

Percussion of lungs: sound- pulmonary, dull, boxlike, tympanical. Limits of lungs and excursion of low edge. Comparative percussion- definition place and size consolidation / collapse, pulmonary fibrosis, pleural fluid.

Auscultation of lungs: characteristic of breathing breath sounds: loudness, quality. Vocal resonance (whispering

pectriloquy). Added sounds (crackles, wheezes and pleural friction rub). Breathing – vesicular, weak, increased, with increasing breath in and out, bronchial, strict. Wheezes (*ronchi*), dry wheezes (*sicci*), wet (*humidi*), crackles (*crepitation*). Localization.

8. Gastrointestinal system: condition of mouth (lips, gum, teeth); tongue: fur, shape, imprint of teeth; smell from mouth (*faetor ex ore*) – “Liver” smell. Inspection of abdomen: (size, shape- distension, etc) “Spide naevi” – venous net, meteorismus- (distension of abdomen caused by a gas). Auscultation: bowel movement. Palpation: -general or local tension of abdomen, umbilical (navel) ring, umbilical canal (hernia palpation of different parts of abdomen and organs (sigma, ileocaecal region and other), limit of stomach, presence of effusion in abdominal cavity.

Padalka’s symptom (enlarged lymphoid nodes of mesenteric region). Splash noise - gastropnoia, atonia. Paresis of intestine – absolute quiet, absence of peristaltic (peritonitis, intestinal impassableness) topographic palpation and percussion of liver, kidney and spleen, urine bladder. The Liver – definition of liver limits by palpation and percussion (painfulness, surface – smooth or unequal (with little hillocks), edge (sharp, rounding), consistence (soft, dense). Inspection gall bladder region painful points, resistance, presence symptoms (Ortner’s, Murphy’s, Georgievsky’s, Courvoisier’s etc).

The spleen- limits (percussion), palpation in different position of patient (on the back and on the right side). Size, shape, consistence, surface.

The rectum- hemorrhoids, cracks. Finger examination and rectomanoscopy (only by indication). Stool – frequency, subjective feeling of patient (pain, tenesmus) . Inspection and characteristic of vomiting and stool mass, volume, color, smell, consistency, passage of blood or mucus, or pus).

9. Nervous system: The consciousness is remained, confused, unconsciousness, typhoid condition, orientation in environment. Moving condition: volumes of passive and active movements in the joints (complete or incomplete), muscle tone, muscle strength, (flexors and extensors; paresis, paralysis, muscle atrophy, fibrillation). Reflexes: *a*) skin: plantar, abdominal (upper, middle, lower, right, left) cremasteric; *b*) mucosal: pharynx, conjunctival, corneal, pupil; *c*) tendon: (*biceps*, *triceps*), corneal, ankle; *d*) pathological reflexes. Vegetative nervous system (dermatographism, sweatiness, bradycardia). Testing of higher mental function (orientation, memory, intellect). Cerebellum (a walk, finger-nose test, Rosenberg’s symptom), feeling (light, touch, pin prick and temperature sensation). Meningeal symptoms: a rigid neck, Kernig’s and Brudzinsky’s symptoms (upper, lower). Nervus cranioccephalis: *I* - *n.olfactorius*, *II* - *n.opticus*, *III* - *n.oculomotorius*, *IV* - *n.trochlearis*, *V* - *n.trigeminalis*, *VI* - *n.abducens*, *VII* - *n.facialis*, *VIII* - *n.vestibulocochlearis*, *IX* - *n.glossopharyngeus*, *X* - *n.vagus*, *XI* - *n.accessorius*, *XII* - *n.hypoglossus*.

10. Urinary system: kidney and bladder. Palpation of kidneys (nephropnoia, painfulness). Inspection of groin region (painfulness, swelling). Frequency of passing urine, a pain, nocturia. Volume of urine (a time, daily). Color, sediments and transparency of urine. Genitals: *a*) a woman - palpation of uterus, size, pregnancy; *b*) a man - inspection of scrotum and testis.

11. Endocrine system. (Thyroid gland, pancreas and others glands).

VII. The preliminary diagnosis

The student should write preliminary diagnosis and ground it. The first of all student ought to evaluate patient’s complaints, results of anamnesis and physical examination. It is necessary that the students will be able to study to observe, to value the symptoms of different diseases, and they will be able to connect them to syndromes. Every disease has a few syndromes but their manifestations are different in various diseases. But many diseases have a typical, very often symptom. Complaints, facts acquired from the history and examination should therefore be analyzed; it becomes much easier and more rapid with clinical experience. Establish in your own mind what exactly has happened: what factors of life, contact with infected persons, animals, or something else would be able to be a source of infection and what way of invasion would be able to be.

The student should compare clinical features of a patient’s diseases with theoretical information the disease proving the resemblance and the difference this differential can be used as a basis for planning further investigations in order to make a final diagnosis.

The student should remember that there are specific, supported and leading symptoms.

The specific symptoms are typical only for this disease. The supported symptoms – characteristic for one disease but can be found in many others diseases and leading symptoms are very common for many diseases. The author of a case history should explain his conclusions about the diagnosis based on the typical for diagnosed cases

VIII. The special methods of investigation

1. X- ray examination, 2. rectosigmoidoscopy, 3. laparoscopy, 4. functional methods: spirometry, pneumotachometry, 5. bronchography, 6. ECG, echocardiography, 7. ophthalmoscopy, 8. echoencephalography, echoelectroencephalography, 9. laryngoscopy, otoscopy, rhinoscopy, 10. CT – scan, ultrasound diagnostics, biopsy.

IX. The laboratory methods of investigation

Common clinical methods – blood, urine, stool, sputum, cerebrospinal fluid; biochemical, bacteriological, serological, virological, parasitological, immunological methods.

X. The differential diagnosis

Next try to make differential diagnosis and this part of a case history is very important that is why the student should show, how he is able to analyze the clinical features and findings of investigation. On this basis a list of probabilities

should be drawn up (Generally the length of this list is inversely proportional to the student knowledge, skills and experience). Obviously making differential diagnosis a patient's origin and epidemiological data should be taken into account.

In this part the student should make differential analysis between clinic intended disease and others illnesses having similar clinical picture. At the beginning, common symptoms of present and resemble diseases should be given that is to ground the necessity of differential analysis. After that, distinctions in clinical picture of present case and compared nosological forms of others diseases should be noted. The student should compare the facts acquired from anamnesis, examination and results of investigations with clinical, laboratory and others feature of chosen diseases. The conclusion about a little probability of that or these diseases should be given.

XI. The final diagnosis

The final diagnosis should be made in complete form. In others words, diagnosis should include the name of principal disease, clinical form, level of severity, if it's possible mark the etiology of this infection.

The student should show any complication and accompanied diseases. The final diagnosis must be formulated and grounded on the results of clinical examination and confirmed by specific methods of laboratory investigation or combination of others tests.

XII. The treatment

1. Specific, 2. Pathogenetic, 3. Symptomatic, 4. Prevention of complications, 5. Therapeutic and protected regimen, 6. Treatment of residual damages. Student ought to complete two part of treatment. He should present the main therapy approaches for this disease. Student estimates clinical form, course and severity of infection and grounds of medical prescriptions for the patient.

XIII. The diary (*cursus morbi*)

The case history includes information about the patient but it should contain the event of this patient's condition day by day therefore this will be useful to night nursing staff and covering doctors.

This part of case history should reflect in detail the course of disease with the indication of date, regimen and treatment (prescribed remedies).

XIV. Prognosis

On the basis course of the diseases, patient's age, presence of accompanied diseases, bad habits, life and work (for "recovering" – *quo ad valitudinem*), (for "life" - *quo ad vitam*), (for "capacity for work"- *quo ad laborem*) prognosis is made. If in the result of disease the patient's work capacity for of patient is limited, the student should determine possible level of disability.

XV. The prophylactic measures

The mechanisms, the way of transmission of infection and prevention methods of infection spreading should be given in this part of case history.

XVI. Epicrisis

This part of case history is a brief extract of case history and it must contain possible short form the main contents of patient history.

It should be followed by a full summary of investigation undertaken, diagnostic problems and clinical peculiarities of this case.

The doctor should include information, about treatment in this part of the case history. Besides, the efficiency of therapeutic measures should be shown. The student should reflect the estimation the form of disease, characteristic temperature curve type, analysis of clinical features and outcome.

The Contents of epicrisis should include the following:

1. Admission to the hospital (the day of the disease, the initial made diagnosis at a referred institution, from where patient was admitted and what condition the patient was in at the admission).
2. Final diagnosis and the order of diagnostic approaches.
3. The main part of epicrisis- clinical picture of this case. The form of the disease, presence or absence principle symptoms. Clinical grounding of diagnosis.
4. Complications.
5. Associated infections.
6. Therapy.
7. Outcome, patient's condition and result of investigation before discharging from the hospital.
8. Recommendations for a patient.

XVII. Conclusion

A student should briefly write about epidemiological peculiarities of the infectious disease. The level of danger for surrounding people. The necessity of admission to the hospital and possible term. Prevention in a infections focus. Vaccination. The term of observation about contacted persons.

XVIII. Literature.

INTRODUCTION TO INFECTOLOGY. INFECTIOUS DISEASES WITH ALIMENTARY ROUTE OF TRANSMISSION STUDY N1

Classification of infectious diseases. Regulations and components of infectious inpatient hospital. Rules of hospitalization, examination and discharge of infectious patients. Specific features of medical documentation in infectious isolation ward. Hospital infections. Typhoid fever. Paratyphoid's A and B.

As a result of the theme study student must know the following questions:

1. Position of infectious diseases in total structure of case rate and their prevalence in different areas of Ukraine and the world;
2. Statistic data regarding case rate, death rate of infectious diseases complications;
3. History of scientific study of infectious diseases. Scientific contribution of native scientists, including KNMU employees in the history of scientific research in this field;
4. Specific features of infectious diseases, patterns of infectious and epidemiological progress of various infectious diseases, and methods of their diagnostics and treatment.
5. Types of infectious clinics, demands to the territory of infectious clinics; structural components, designation and functions of sanitary inspection station, designation and components of isolation wards and the role of auxiliary units;
6. Peculiarities of infectious patient transportation.
7. Tasks of infectious hospital, disinfection in infectious hospital;
8. Principles of assortment in admission department for infectious patients.
9. Special rules for organization in treatment and referring infectious patients in departments.
10. Peculiarities of examination and laboratory investigation patients with infectious diseases.
11. Prevention of hospital-acquired infection; measures to protect medical staff against infection;
12. Rules of filling in documentation, rules of discharge, recommendations to infectious patients;
13. Distinctive features of infectious diseases, aspects influencing the course of diseases; specific features of immunity at infectious diseases;
14. Fundamentals of infectious diseases classification;
15. General characteristics of different groups of infectious diseases – intestinal, respiratory, blood, wound infections, infections with multiple mechanisms of transmission;
16. Role of zoonotic diseases in human pathology;
17. Particularly dangerous and quarantine infections, feral herd infections, most widely spread infections in Ukraine;
18. Age-dependent features of infectious diseases;
19. Main stages of studying infectious diseases, contribution of native and foreign scientists to development of infectology;
20. Methods of diagnostics and treatment of diseases;
21. Specific prophylactics of infectious diseases;
22. Post exposure prophylaxis of infectious diseases;
23. Types of fever-curves at infectious diseases, their diagnostic importance.
24. Follow the main rules of behavior in infectious hospital, in particular by sickbed;
25. Make up epidemiological history of the disease and define possible routes and aspects of infection transmission;
26. Solve the issue of necessary hospitalization of the patient to infectious clinic
27. Prepare and submit proper documentation to sanitary and epidemiological station.
28. Concept of hospital infections, etiology and epidemiology of diseases;
29. Etiology of hospital infections;
30. Clinical and laboratory diagnostics of hospital infections;
31. Principles of treatment and prophylaxis of hospital infections, prognosis of diseases.
32. Etiology agents and pathogenicity factors of typhoid fever, paratyphoid A, paratyphoid B.
33. Typhoid fever epidemiology, ways of typhoid fever, paratyphoid A, paratyphoid B transmission.
34. *S. typhi* pathogenicity factors and stages of typhoid fever pathogenesis.
35. Structural (morphological) changes of small bowel wall subject to the period of disease.
36. Clinical classification and main signs of typhoid fever in dependence of disease form, period and severity. Criteria of severity.
37. Characteristics of rash among patients with typhoid fever.
38. Stages of clinical course cyclic of a typhoid fever. Type of fever of patients with typhoid fever.
39. Epidemiological and clinical peculiarities of paratyphoid A and paratyphoid B.
40. Pathogenesis, term of onset and clinical manifestations of specific and unspecific typhoid fever complications.
41. Differential diagnostic with salmonellosis, sepsis, and acute respiratory viral infections.
42. Plan of examination of patients with typhoid fever.
43. Methods of specific typhoid fever diagnostics. Interpretation of results subject to the period of disease and examined material.
44. CBC of patients with typhoid fever at the height of disease.
45. Principles of treatment. Specific and pathogenetic typhoid fever therapy.
46. Policy of treatment in case of emergency.
47. Prophylaxis approaches.
48. Rules of discharge from hospital and clinical supervision of convalescents.

List of practical training skills that student should be able to perform during the practical class:

1. Use methods of science analysis in study of etiology, pathogenesis, diagnosis, and treatment.
2. Establish epidemiological history of infectious patient.

3. Define possible mechanisms, routes and aspects of infection transmission.
4. To find specific symptoms and syndromes for any infectious disease.
5. Ground preliminary diagnosis.
6. Solve the issue of necessary hospitalization of the patient with infectious disease.
7. Make up an emergency notification about occurrence of infectious disease.
8. Prescribe laboratory investigation and analyze its results.
9. Work out differential diagnosis of infectious disease.
10. Fill out final diagnosis and complications.
11. Prescribe treatment for patient with infectious disease in outpatient condition.
12. Prescribe specific (antimicrobial, antiviral, and antiparasitic) therapy.
13. Diagnosis emergency care stages.
14. Reveal critical status of an infectious patient and to be able to work out of intensive care.
15. Have sufficient level of theoretical and clinical knowledge, which have been taken in previous departments.
16. Give recommendations to the patient related to prevention of hospital-acquired infection.
17. Organize the first antiepidemic measures against quarantine infections.
18. Discharge the patient from infectious inpatient hospital.
 19. Keep basic rules at the bedside.
 20. Prepare medical history with epidemiologic evidence estimation.
 21. Examine a patient and detect basic typhoid fever symptoms and syndromes, find Padalka's

- symptom,
22. prove clinical diagnosis for timely referral to
23. Treatment.
24. Identify possible typhoid fever complications and emergencies on basis of clinical examination.
25. To make differential diagnostics of typhoid fever.
26. To master methods of examination of a patient with typhoid fever, paratyphoid A, paratyphoid B
27. Make patient's examination plan.
28. To know rules and terms of blood, feces, bile and urine sampling for microbiologic culture.
29. To know rules, techniques and terms of serologic blood tests in patients with typhoid and paratyphoid fevers
30. To interpret results of specific examination of a patient with typhoid fever. Estimate results RBC, WBC and to reveal typical changes in peripheral blood in typhoid fever in increment and acme periods
31. Diagnose specific complication in typhoid fever.
32. To make up a treatment plan of a patient with typhoid fever.
33. To determine a policy of treatment in emergency cases.
34. Make recommendations concerning regimen, diet, examination, observation during convalescent period.
35. To draw up medical documentation after diagnosing typhoid fever.

Give definitions to the terms:

Infection - _____

Infectious process - _____

Infectious disease - _____

Co-infection - _____

Superinfection - _____

Reinfection - _____

Autoinfection - _____

Nosocomial infections - _____

Ubiquitous infections - _____

Feral infections - _____

Recrudescence - _____

Remission - _____

Return of the disease - _____

Mechanisms of transmission - _____

Routes of transmission - _____

Urgent prevention - _____

Specific prevention - _____

Unspecific prevention - _____

Give your answer on the questions:

Specific features of infectious diseases: _____

Allocation in infectious hospital: _____

Components of infectious hospital: _____

Distribution of patients at sanitary inspection station: _____

Prophylactics of hospital-acquired infections: _____

List the main features of microorganisms influencing the course of infectious process: _____

Classification of infectious diseases: _____

Stages of infectious diseases diagnostics: _____

Give characteristics to the main fever curves: _____

Methods of infectious diseases specific diagnostics: _____

Methods of treatment of infectious diseases: _____

Ways of infectious diseases prophylactics: _____

Hospital infections (HI)

Definition of HI _____

Etiology of HI _____

Factors, assisting to HI _____

Main groups of HI _____

Clinical manifestation of HI _____

Laboratory methods: _____

Treatment: _____

Prevention: _____

Typhoid fever. Pathogen _____ genus _____ serogroup _____

Gram staining _____ antigens: 1. _____ 2. _____ 3. _____ pathogenicity factors: 1. _____ 2. _____

Source of infection: 1. _____ 2. _____ mechanism of transmission _____ routes of transmission: 1. _____ 2. _____ 3. _____ seasonality _____

Stages of pathogenesis: _____

Week of disease	Morphological changes
I	
II	
III	
IV	
V	

Clinical classification. Clinical forms: 1. _____ 2. _____

Atypical forms: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Severity: 1. _____ 2. _____ 3. _____

Bacteriacarrier: 1. _____ 2. _____ 3. _____

Incubation period _____ Stages of disease: 1. _____ 2. _____ 3. _____ 4. _____

Types of temperature curve: _____

Clinic of increment period: _____

Clinic of acme period: _____

Clinic of toxic shock: _____

Clinic of status typhosus: _____

Clinic of hemorrhage in typhoid fever: 1. _____ 2. _____ 3. _____ 4. _____

Clinic of perforation of intestine: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Laboratory investigation: Blood test: _____

Urine test: _____

Bacteriologic tests: _____

Serologic tests: _____

Therapy: _____

Therapy of toxic shock _____

Criteria for convalescent discharge: _____

List differences of paratyphoid fevers

Peculiarities of paratyphoid fever A	Peculiarities of paratyphoid fever B

Differential diagnosis

Symptoms	Typhoid fever	Paratyphoid A	Paratyphoid B	Salmonellosis	Influenza, ARVI	Epidemic typhus
Onset						
Fever						
Intoxication						
Vomit						
Feces						
Dehydration						
Pain in abdomen						
Rash (element, term of eruption, localization)						
RBC WBC						
Spleen, Liver						
Condition of CNS						

Test tasks

№ 1

Indications for hospitalization to infectious hospital:

- A. suspicion for an infectious disease
- B. infectious disease of a hostel resident
- C. severe progress of infectious disease
- D. not-serious infectious disease of student living in a separate apartment
- E. cook – carrier of Salmonella

№ 2

Rules of patient discharge from infectious inpatient hospital:

- A. clinical recovery
- B. stopped generation of germs
- C. negative results of bacteriological tests
- D. no complications
- E. negative response of antibodies to the germ of the disease

№ 3

Rules of placing patients in wards of infectious inpatient hospital:

- A. by nosological entities with regard to severity of the condition
- B. by nosological entities with regard to period of the disease
- C. by nosological entities with regard to severity and period of the disease
- D. filling in wards within 1-2 days
- E. filling in wards as soon as free place is available

№ 4

Patient, 34 years old, cook of a restaurant, is complaining of stomach-ache, diarrhea, vomiting and body temperature increase. He has an acute form of disease which became evident in the morning (with the symptoms above). He ate fried eggs and salad with meat the other days. His wife has an acute respiratory viral disease. She came back from her tourist trip to RSA a week ago.

Results of examination: moderate severe condition. Body temperature – 38,9°C. Pale and dry skin. Abdomen is soft, tenderness in the low part of the stomach, near omphalus. During examination – vomiting, vomited matter mixed with bile. Bulky stool of green color, nauseous.

1. Solve the issue, if it is necessary to send the patient to hospital.
2. What material can be used to verify diagnosis?
3. Define possible mechanism, routes and aspects of infection transmission of the patient.

№ 5

Typhoid fever agent is:

- A. Salmonella enteritidis
- B. Salmonella typhi
- C. Salmonella paratyphi A
- D. Salmonella paratyphi B
- E. Salmonella typhimurium

№ 6

Source of paratyphus A infection

- A. Persons having paratyphus A
- B. Healthy agent carrier
- C. Cattle
- D. Poultry
- E. Rodents.

№ 7

Typical clinical presentations of typhoid fever at the climax of disease:

- A. Diarrhea with water and electrolyte imbalance
- B. Enteroparesis
- C. Fever
- D. Insomnia
- E. Hepatosplenomegaly (Banti's syndrome) with jaundice.

№ 8

A 32 year old female has complains on fever, dull headache in occipital and temporal region, insomnia, constipation. On examination on the 8th day of disease, fever is 39,8°C, inhibited in thinking, drowsy. Ps – 72, dicrotic. Skin is pale. There are single rose spots on abdomen. Tongue coated by fur, dry with teeth imprints. Distention of abdomen, without painfulness. Dullness of percussion sound in ileocaecal region. Hepatolienal syndrome.

A. What is your preliminary diagnosis?

- a) food poisoning,
- b) typhoid fever,
- c) paratyphoid B,
- d) salmonellosis,
- e) enterovial infection.

B. What are the most typical symptoms?

- a) graduate onset,
- b) high temperature febris continua,
- c) hemorrhagic rash,
- d) enlargement of liver and spleen,
- e) agitation.

C What laboratory tests are necessary in this case?

- a) hemoculture, coproculture,
- b) culture of blood on sugar liquid media,
- c) immunofluorescence assay,
- d) Vidal serologic test,
- e) swab from oropharynx.

D. What are the main methods of therapy?

- a) antibiotics,
- b) spasmolytics,
- c) desintoxication,
- d) anabolics,
- e) rehydration.

№ 9

26 years old male was admitted to a hospital. He experienced acute onset of disease, when temperature increased more 38°C , developed coryza, dry cough, appeared herpes labialis. On the 4th day he noticed rose papules rash on the trunk. Fever has remittent pattern. On examination redness of sclera and face. Lungs auscultation was normal. On the trunk rose spots and macular to papular rash. Liver and spleen are enlarged. Constipation is observed.

A. What is your preliminary diagnosis?

- a) paratyphoid B,
- b) enteroviral infection,
- c) paratyphoid A,
- d) poliomyelitis,
- e) typhoid fever.

B. What are the typical symptoms for this disease?

- a) dull headache,
- b) high temperature febris continua,
- c) high temperature febris remittent,
- d) polymorphic rash,
- e) enteritis,
- f) hemorrhagic rash.

C. What laboratory tests are necessary in this case?

- a) hemoculture,
- b) immunofluorescence microscopy,
- c) agglutination with O- and H-antigens,
- d) virology test,
- e) culture of blood on sugar liquid media,
- f) liver function test.

D. What antibiotic is recommended for this case?

- a) cefazolin,
- b) ciprofloxacin,
- c) G-penicillin,
- d) chloramphenicol,
- e) doxycycline,
- f) erythromycin

№ 10

16 years old male was admitted on the 8th day of disease in infectious hospital. Disease had acute onset with symptoms of respiratory infection. Temperature increased 38.6°C , enteritis and vomiting had developed. Patient reported a headache. On the 4th day of disease temperature became normal. On the 6th day patient's condition was deteriorating: raised temperature 39°C , developed severe headache, vomiting, pain in spine and low extremities. Weakness was appearing in legs. On examination: muscle tone is increased in low extremities, tendon reflexes are absent.

A. What is your preliminary diagnosis?

- a) salmonellosis sepsis,
- b) enteroviral infection serous meningitis,
- c) poliomyelitis,
- d) rotavirus infection,
- e) campylobacteriosis,
- f) botulism.

B. What are the typical symptoms for this disease?

- a) headache,
- b) febris continua,
- c) dual-wavelength febris,
- d) decreasing or absence of tendon reflexes,
- e) paralysis development
- f) increased WBC.

C. What laboratory tests are necessary in this case?

- a) bacteriologic investigation,
- b) virology investigation,
- c) blood culture,
- d) serologic test,
- e) ELISA,
- f) lumbar puncture.

D. What are the main methods of therapy?

- a) Ribavirin,
- b) donor immunoglobulin,
- c) co-trimoxazol,
- d) ceftriaxon,
- e) steroids
- f) interferon.

№ 11

A. Find the typical blood count in patient with typhoid fever in acme period:

- a) RBC $4,0 \times 10^{12}/\text{l}$, Ht 0,42, Hb 140 g/l, WBC $12,1 \times 10^9/\text{l}$, e. 6%, neu. 64%, lym. 15%, mon. 5%, RSR – 22 mm/h.,
- b) RBC $3,1 \times 10^{12}/\text{l}$, Ht 0,3, Hb 112 g/l, WBC $3,1 \times 10^9/\text{l}$, e. 4%, neu. 46%, l. 35%, mon. 15%, RSR – 12 mm/h.,
- c) RBC $5,0 \times 10^{12}/\text{l}$, Hb 155 g/l, WBC $13,0 \times 10^9/\text{l}$, e. 0%, jun./neu. 2% neu. 88%, lym. 10%, m. 5%, RSR – 50 mm/h.,
- d) RBC $6,2 \times 10^{12}/\text{l}$, Ht 0,6, Hb 180 g/l, WBC $18,1 \times 10^9/\text{l}$, e. 2%, neu. 73%, lym. 20%, mon. 5%, RSR – 22 mm/h.,
- e) RBC $3,8 \times 10^{12}/\text{l}$, Ht 0,4, Hb 127 g/l, WBC $3,0 \times 10^9/\text{l}$, e. 0%, neu. 45%, lym. 40%, mon. 15%, RSR – 22 mm/h.

B. What are symptoms of intestine hemorrhage as complication of typhoid fever?

- a) «knife pain», increased temperature, vomiting, peritoneal symptoms, BP fall, and melena.
- b) dizziness, orthostatic unconsciousness, pain in abdomen, diarrhea, vomiting, increased temperature, decreased BP.
- c) decreased temperature, tachycardia, dizziness, paleness, defiance in abdomen palpation, decreases RBC and Ht.
- d) melena, decreases RBC and Ht, sigma spasms, spastic pain in abdomen, tenesmus, high temperature.
- e) high temperature, bradycardia, chills, anemia, breathlessness, decreased BP, constipation, urine blade paralysis

C. What regimen of therapy is more appropriate for toxic shock in patient with typhoid fever?

- a) trisolum, cardiaminum, adrenaline, 10% glucose sol., cephalosol, furosemide, aminophylline, gordox,
- b) furosemide, mannitolum, dexametozone, ciprofloxacin, aminophylline, 5% or 10% glucose sol.,
- c) trisolum, lactosolum, 0,9% sol. of NaCl, reosorbilactum, adrenalin, mesatonum,
- d) Hecodezum, reosorbilactum, prednizolon, chloramphenicol, dopamine, 0,9% NaCl sol., heparin, gordox,
- e) Insulin, trisolum, lactosolum, 0,9% NaCl sol., reosorbilactum, xylatum, 5% glucose sol., G-penicillin.

№ 12

A 32-year-old patient came to a district doctor on the fifth day of disease complaining of strong headache, general weakness, absence of appetite, insomnia, raise of temperature from $37,5^{\circ}\text{C}$ at the very first day to $39,0^{\circ}\text{C}$ at the day of visit. Objectively: significant skin paleness, no rash. A tongue is coated with white fur; on the lateral surfaces, which are free from fur, there are teeth prints. Pulse- 78 beats/minute, blood pressure - 110/60 Hg. An abdomen is moderately

bloated, painless. Enlargement of liver 1,5-2 cm is seen from the costal margin edge. Padalka's symptom is positive. No bowel emptying for 2 days.

1. *Make preliminary diagnosis.*
2. *Plan of examination.*
3. *Treatment.*

Recommended medicines (To write prescriptions)

- | | |
|---------------------------|--------------------------------|
| 1. Acidum aminocapronicum | 9. Gatifloxacin |
| 2. Ampicillin | 10. Norfloxacin |
| 3. Ceftazidime | 11. Proserinum |
| 4. Ceftriaxon | 12. Rheopolyglucinum |
| 5. Chloramphenicolum | 13. Rheosorbilactum |
| 6. Ciprofloxacinum | 14. Strophanthinum k |
| 7. Dexamethasonum | 15. Sulfocamphocainum |
| 8. Etamsylatum | 16. Trimetoprim-sulfametoxazol |

EXAMINATION OF PATIENT (TRANSACTIONS OF ANSWERS)

Patients first name, second name and patronymic, age, sex			Points
1	Complaints		
	Anamnesis of disease		
	Anamnesis epidemica		
	Anamnesis of life		
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.		
3	Cardiovascular system examination.		
4	Physical examination of the respiratory system.		
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).		
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.		
7	Basic syndrome.		
8	Intrasymptom differential diagnosis.		
9	Preliminary clinical diagnosis.		
10	Examination plan.		
11	Assessment of laboratory findings and interpretation of instrumental findings.		
12	Determining principles of treatment, tactics of management, the necessary routine of work and rest, diet.		
13	Determining prognosis and preventive measures for the given patient.		

Solving practical skills are assessed with "1", "0,5", "0".

Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

STUDY N2.

Diarrheal syndrome in the clinic of infectious diseases. Dehydration shock. Cholera. Salmonellosis. Food toxicoinfections. Infectious diseases of viral etiology with mainly fecal-oral transmission.

Date _____

As a result of the theme study student must know the following questions:

1. Diarrheal syndrome: etiology, pathogenesis, classification depending on cooperation between micro- and microorganism.
2. Clinical features, laboratory diagnostics of diarrheal syndrome.
3. Types of water and electrolyte imbalance.
4. Diagnostics and principles of dehydration shock treatment.
5. History of scientific study of salmonellosis and food toxic infection (FTI), have an idea of scientific contribution of native scientists, including employees of NMU virulent diseases hospital, in the history of scientific research in this field.
6. Position of salmonellosis and FTI in the structure of virulent diseases, prevalence in different areas of Ukraine and the world; study statistic data related to case rate, case mortality, event frequency and bacteria carriage as for today,
7. Causation of salmonellosis and FTI.
8. Sources and routes of transmission of food toxic infections and salmonellosis.
9. Pathogenesis of food toxic infections.
10. Pathogenesis of salmonellosis.
11. Clinical forms of food toxic infection criteria of diagnosis.
12. Clinical symptoms of gastrointestinal and generalized forms of salmonellosis.
13. Criteria of severity estimation, complications of food toxic infections, escherichiosis and campilobacteriosis.
14. Pathogenesis, genesis term and clinical aspects of salmonellosis complications.
15. Differential diagnostics of food toxic infections, salmonellosis and rotoviral infection.
16. Methods of laboratory diagnostics of food toxic infections and salmonellosis. Indications for bacteriological blood testing at salmonellosis and FTI.
17. Principles of food toxic infections and salmonellosis treatment.
18. Medical approach in case of emergencies.
19. Principles of food toxic infections and salmonellosis prophylaxis.
20. Rules of discharge from in-patient hospital and clinical supervision of food toxic infections and salmonellosis convalescents.
21. Pathogens of cholera, serovars. Properties of cholera vibrios (Asiatic type, El Tor, Bengal).
22. Sources of infection and routes of transmission of cholera.
23. Pathogenesis of cholera.
24. Clinical classification of cholera and symptoms depending on a form.
25. Degrees of dehydration at cholera, their clinical presentations (by V.I. Pokrovsky).
26. Differential diagnostics of cholera, food toxic infections, salmonellosis, escherichiosis, rotoviral infection.
27. Methods of laboratory diagnostics of cholera.
28. Principles of cholera treatment. Rehydration therapy. Composition of salt solutions.
29. Rules of discharge from hospital and clinical supervision for cholera convalescents.
30. Pathogens of escherichiosis, sub-groups.
31. Sources of infection and routes of transmission of escherichiosis.
32. Pathogenesis of escherichiosis.
33. Clinical symptoms depending on the sub-group of Escherichia.
34. Methods of escherichiosis laboratory diagnostics.
35. Therapy of escherichiosis.
36. Rules of discharge from hospital and clinical supervision for escherichiosis convalescents.
37. Pathogens of campilobacteriosis, their properties.
38. Sources of infection and routes of transmission of campilobacteriosis.
39. Pathogenesis of campilobacteriosis.
40. Clinical variants of campilobacteriosis and symptoms depending on a form (localized, generalized).
41. Methods of campilobacteriosis laboratory diagnostics.
42. Therapy of campilobacteriosis (peculiarities of specific therapy)
43. Rules of discharge from hospital and clinical supervision of campilobacteriosis convalescents.
44. Etiology, epidemiology, pathogenesis, clinic, diagnostics and treatment of rotoviral infection.
45. Pathogenetic peculiarities of diarrheal syndrome development at rotoviral infection.
46. Clinical presentations of rotoviral infection.
47. Laboratory diagnostics of rotoviral infection.
48. Therapy of rotoviral infection.

List of practical training skills that student should be able to perform during the practical class:

1. Follow the main rules of behavior nearby patient's bed.
2. To collect medical history estimating epidemiological data.
3. To examine the patient and find out the main symptoms and syndromes of salmonellosis and FTI.
4. To make the clinical diagnosis and solve the issue of necessary inpatient treatment.
5. To define medical approach in different clinical forms of salmonellosis and FTI.
6. To make a plan of patient's laboratory and instrumental examination for patient with supposed salmonellosis and FTI.
7. To analyze the results of laboratory examination and give a proper estimate to the results of specific methods of diagnostics proceeding from material and period of examination
8. To estimate the results of coprology test.
9. To carry out gastric lavage; vomiting masses and gastric lavage waters sampling for bacteriological research.
10. To sample excrement, blood, urine, bile for

bacteriological research.

11. To set and estimate serologic researches (RIHA).
Make conclusion about results of serologic test.
12. To perform differential diagnostics of salmonellosis and FTI.
13. Diagnostics of salmonellosis carriage.
14. Based on clinical examination define possible specific complications of salmonellosis, emergencies.
15. To know reasons for generalized forms of salmonellosis development.
16. To estimate the degree of dehydration.
17. To calculate a volume and conduct rehydration therapy depending on the degree of dehydration.
18. Make up an individual treatment plan taking into account epidemiological data, stage of disease, available complications, severity of the condition,

allergic anamnesis, provide rescue emergency care.

19. To know indications for specific therapy of salmonellosis. Drugs, dosing, ways of administration and duration of treatment.
20. Render emergency care at local forms of salmonellosis and FTI.
21. Make up a preventive measures plan for the centre of infections.
22. To know rules of discharge of patient with salmonellosis from inpatient hospital.
23. Fill in medical documentation based on previously stated diagnosis "salmonellosis" (emergency call to regional epidemiological department),
24. To provide recommendations related to mode of treatment, diet, examination and medical supervision during recovery period

Food toxin infections. Pathogens: _____

Sources of infection: _____ mechanism of infection: _____

route of transmission: _____ factors of transmission: _____

Basic factors of pathogenicity: _____

Clinical forms: _____

Clinical manifestation: _____

Clinical manifestation of staphylococcal toxic infections: _____

Clinical manifestation of clostridia toxic infections: _____

Complications: _____

Laboratory diagnostics: _____

Treatment: _____

Emergency measures at collapse: _____

Salmonellosis. Pathogen: family: _____ genus: _____ species: _____

Main serovars: _____

Gram's stain: _____ antigens: 1. _____ 2. _____ 3. _____ toxins: 1. _____ 2. _____

Source of infection: 1. _____ 2. _____ 3. _____

Mechanism of infection: _____ routes of transmission:

1. _____ 2. _____ 3. _____ seasonality: _____

Pathogenesis: _____

Mechanism of diarrhea: _____

Clinical forms: A. _____ 1. _____ 2. _____

3. _____ 4. _____ B. _____ 1. _____ 2. _____

C. _____ 1. _____ 2. _____ 3. _____ D. _____

Clinic of gastrointestinal form gastroenteritis variant: _____

Gastroenterocolitic variant: _____

Clinic of typhoid-like form: _____

Clinic of septicopyemic form: _____

Complications: _____

Clinic of toxic shock: _____

Laboratory diagnostics: blood test: _____

Urine test: _____

Coprology test: _____

Bacteriological examination: _____

Serologic examination: _____

Therapy	Gastrointestinal form	Generalized form
Specific (medication, dose, duration of introduction)		
Pathogenetic		
Symptomatic		

Indications criteria for etiotropic therapy: _____

Rules of discharge from hospital and clinical supervision of convalescents: _____

Cholera. Pathogens: family: _____ genus: _____ species: _____

Biovars: 1. _____ 2. _____ Serovars: 1. _____ 2. _____ 3. _____

Gram's stain: _____ antigens: 1. _____ 2. _____ basic factors of pathogenicity: _____

Source of infection: 1. _____ 2. _____ mechanism of infection: _____

Routes of transmission: 1. _____ 2. _____ 3. _____

Epidemiology features: _____

Seasonality: _____

Scheme of pathogenesis: 1. _____ 2. _____ 3. _____ 4. _____

5. _____ 6. _____ 7. _____ 8. _____ 9. _____

Atypical forms: 1. _____ 2. _____ 3. _____ 4. _____

Incubation period: _____ onset: _____

Clinic of cholera enteritis: _____

Cholera gastroenteritis: _____

Cholera algid: _____

Complications: _____

Laboratory diagnostics: blood test: _____

Urine test: _____

Coprology test: _____

Biochemical test: _____

Bacteriological examination: _____

Serologic examination: _____

Speed-up (express) methods: 1. _____ 2. _____ 3. _____ 4. _____

Signs	Degree of dehydration			
	I	II	III	IV
Value of body mass loss (%)				
Vomiting (frequency)				
Stool (frequency)				
Thirst, dryness in mouth				
Voice				
Body temperature, elasticity, color of skin				
Cramps				
Pulse				
BP				
Hematocrit, erythrocytes, leucocytes, Hb, ESR				
pH of blood, base deficiency (BE)				
Density of plasma				
Concentration of K^+ , Na^+ , Cl^-				
Creatinine, urea				
Diuresis				

Stages of rehydration therapy: 1. _____ 2. _____

Calculation of liquid volume: _____

Degree of dehydration	Pathogenetic therapy
I	
II	
III	
IV	

Specific therapy of cholera: _____

Solution	Alkaline buffer (gm)	NaCl (gm)	KCl (gm)	Other salts (gm)
Oralit				
Regidron				
Disolum				
Trisolum				
Quartasolum				
Acesolum				
Lactosolum				

Criteria of effective rehydration: 1. _____ 2. _____ 3. _____

Rules of discharge from hospital and clinical supervision of convalescents: _____

Escherichiosis. Pathogens: family: _____ genus: _____ species: _____

Gram's stain: _____ antigens: 1. _____ 2. _____ 3. _____ Groups of pathogenic *E.coli*:

1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Source of infection: 1. _____ 2. _____ Mechanism infections: _____

Routes of transmission: 1. _____ 2. _____ 3. _____ seasonality: _____

Clinic of dysenteriae-like variant: _____

Clinic of cholera-like variant: _____

Diarrhea of travelers: _____

Hemolytic-uremic syndrome: _____

Laboratory diagnostics: blood test: _____

Urine test: _____

Coprology test: _____

Bacteriological examination: _____

Serologic examination: _____

Principles of treatment: _____

Campylobacteriosis. Genus: _____ main species: 1. _____ 2. _____ 3. _____
 Gram's stain: _____ antigens: 1. _____ 2. _____ toxins: 1. _____ 2. _____
 Source of infection: 1. _____ 2. _____ 3. _____
 Mechanism of infection: _____ Routes of transmission: _____
 1. _____ 2. _____ 3. _____ seasonality: _____

Pathogenesis: _____

Classification: by severity: 1. _____ 2. _____ 3. _____
 By localization: A. _____ 1. _____ 2. _____
 B. _____ 1. _____ 2. _____
 By course: 1. _____ 2. _____ 3. _____
 By duration: 1. _____ 2. _____ 3. _____
 Clinic of campylobacteriosis, caused by *C. jejuni* and *C. coli* _____

Complications: _____

Clinic of campylobacteriosis, caused by *C. fetus* _____

Complications: _____

Laboratory diagnostics: blood test: _____

Urine test: _____

Coprology test: _____

Bacteriological examination: _____

Serologic tests, results: _____

Specific therapy of campylobacteriosis (medication, dose and duration): _____

Differential diagnosis of acute intestinal infections

Symptoms	Food toxic-infections	Salmonellosis	Cholera	Escherichiosis	Campylobacteriosis	Rotoviral infection
Onset						
Fever						
Intoxication						
Vomiting						
Nausea						
Abdominal pains (localization and character)						
Stool characteristic						
Dehydration						
Epidemiological anamnesis						
Changes in faeces						
Liver						
Spleen						

Rotoviral infection. Pathogens: family: _____ genus: _____ species: _____

Source of infection: _____ mechanism of infection: _____ routes of transmission: _____

age of patients: _____ seasonality: _____

Pathogenesis: _____

Clinical manifestation: _____

Laboratory diagnostics: _____

Therapy: _____

Test tasks

№ 1

Principles of treatment of gastrointestinal variants of salmonellosis:

- a) Prescription of levomycetin
- b) Gastric and intestines lavage
- c) Prescription of indometacin
- d) Intravenous glucose solution in dosage related to the extent of dehydration
- e) Saline solutions

№ 2

Which microorganisms can cause toxic food infections?

- a) Leptospira
- b) Salmonella typhi
- c) Staphylococcus aureus
- d) Clostridium tetani
- e) Clostridium perfringens

№ 3

Clinical signs of gastroenteric form of salmonellosis:

- a) Blood and mucus tap in feces
- b) Nausea, vomiting
- c) Sigmoid intestine spasm
- d) Excrements of green color
- e) Stomach-ache

№ 4

Patient, 20 years old, has an acute onset of the disease. He was complaining of rigor, feel of heat, temperature increase up to 39°C, nausea, vomiting, frequent bulky and nauseous stool without any pathological tap, and ache in epigastric and mesogastric areas. His sister had the same symptoms. 6 hours before sickness the patient ate a boiled duck, which had been stored for 10-12 hours at room temperature.

Results of examination: moderate severe condition, body temperature – 39,2°C, tissue turgor is reduced, dry tongue with rich brown fur. BP – 100/60 mm Hg, pulse – 100 /minute, very weak. Tenderness in epigastric zone, close to omphalus. There are convulsions of sural muscles.

1. Primary diagnosis.
2. Examination plan.
3. Treatment plan.

№ 5

29-year-old patient suddenly fall ill. Complaints are chill, frequent vomiting, periodic stomach-ache in epigastric and umbilicus areas appeared. The body temperature increased up to 38,6°C. There are fluid, watery, fetid faeces 10 times per day.

On examination: state of moderate severe. Skin is pale and dry, turgor is reduced. Tongue is dry and covered by a white fur. Ps – 86, BP – 100/60 mm Hg. Abdomen during palpation is painful in epigastrium and around umbilicus. It is known from anamneses that before 24 h of the disease onset patient ingest potato salad, which is dressed with sour cream and was kept at a room temperature.

- A. What is your preliminary diagnosis?
 - a) cholera,
 - b) acute appendicitis,
 - c) food toxin infection,
 - d) amebiasis,
 - e) botulism.
- B. What methods of laboratory diagnostics are used for diagnosis determination?
 - a) blood test,
 - b) coprology test,
 - c) bacteriological test,
 - d) X-ray study of abdominal organs,
 - e) fiberoptic colonoscopy.
- C. What biological materials are picked for bacteriological research?
 - a) blood,
 - b) urine,
 - c) gastric lavage waters,
 - d) excrements,
 - e) bile.
- D. Methods of treatment:
 - a) gastric lavage,
 - b) siphon enema,
 - c) enterosorbents,
 - d) antibiotics,
 - e) rehydration solutions.

№ 6

Onset of the disease was abrupt with weakness, dizziness, increasing of body temperature up to 39°C. Pain in epigastric area, nausea and vomiting were registered. Then abdominal pain displaced in the umbilicus area. The liquid abundant excrements of greenish color, spumous and fetid appeared. Stomach-aches take on poured character. On a background the frequent vomiting and liquid defecating cramps were marked in lower extremities. On the eve of disease a patient ingest jellied meat.

On examination: the state is severe. Skin is pale, cyanotic and dry by touch. Tongue is dry and covered with a brownish fur. Lips are dry. P – 90, BP – 90/40 mmHg. Abdomen is swollen, painful under palpation in epigastria, umbilicus and ileocaecal areas.

- A. What is your preliminary diagnosis?
 - a) cholera,
 - b) enteroviral infection,
 - c) salmonellosis,
 - d) yersiniosis,
 - e) escherichiosis
- B. What complications may be at this disease?
 - a) intestinal bleeding,

- b) hypovolemic shock,
 - c) toxic shock,
 - d) myocardial infarction,
 - e) pulmonary edema.
- C. *What laboratory tests are used at this disease?*
- a) blood test,
 - b) biochemical test,
 - c) coprology test,
 - d) bacteriological test,
 - e) serological examination.
- D. *Which solutions are used for rehydration therapy?*
- a) 10% solution of glucose,
 - b) physiological solution,
 - c) trisolum,
 - d) acesolum,
 - e) rheosorbilact.

№ 7

20 years old patient had an acute onset. Profuse diarrhea appeared suddenly. Defecating is abundant, watery, without pathological admixtures. Then the frequent vomiting without nausea with plenty of vomit masses joined. Patient comes back from India, where he was in a tourist journey.

On examination: T – 36,1°C. A stomach is drawing in, painless under palpation. Sound of «splash» down thin intestinal loops.

- A. *What is your preliminary diagnosis?*
- a) cholera,
 - b) salmonellosis,
 - c) escherichiosis,
 - d) shigellosis,
 - e) rotaviral gastroenteritis.
- B. *What are the most characteristic clinical presentations of illness?*
- a) stomach-aches,
 - b) increase of temperature,
 - c) diarrhea,
 - d) vomiting,
 - e) cramps.
- C. *What methods of laboratory diagnostics are used for diagnosis determination?*
- a) routine clinical tests,
 - b) bacteriological,
 - c) serological,
 - d) immunofluorescence,
 - e) virology.
- D. *Which medicines are applied at illness treatment?*
- a) 5% solution of glucose,
 - b) salt solutions,
 - c) erythromycin,
 - d) norfloxacin,
 - e) ampioxum.

Recommended medicines (To write prescriptions)

- | | |
|--------------------------------|--------------------------------|
| 1. Amikacini sulfas | 17. Gastrolit |
| 2. Ampicillin | 18. Gentamycini sulfas |
| 3. Atoxylum | 19. Glucosolanum |
| 4. Bactisubtil | 20. Kvartasol |
| 5. Ciprofloxacin | 21. Laktosol |
| 6. Clarithromycin | 22. Metoclopramidum |
| 7. Co-trimoxazol | 23. Nifuroxazide |
| 8. Cefotaxim | 24. Norfloxacin |
| 9. Ceftriaxon | 25. Ofloxacin |
| 10. Disolum | 26. Oralit |
| 11. Doxycyclini hydrochloridum | 27. Phthalazolum |
| 12. Enterol | 28. Platyphyllini hydrotartras |
| 13. Enterosgelum | 29. Polyphedanum |
| 14. Erythromycin | 30. Rehydron |
| 15. Festal | 31. Trisolum |
| 16. Furazolidon | |

EXAMINATION OF PATIENT (TRANSACTIONS OF ANSWERS)

Patients first name, second name and patronymic, age, sex			Points
1	Complaints		
	Anamnesis of disease		
	Anamnesis epidemica		
	Anamnesis of life		
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.		
3	Cardiovascular system examination.		
4	Physical examination of the respiratory system.		
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).		
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.		
7	Basic syndrome.		
8	Intrasynndrome differential diagnosis.		
9	Preliminary clinical diagnosis.		
10	Examination plan.		
11	Assessment of laboratory findings and interpretation of instrumental findings.		
12	Determining principles of treatment, tactics of management, the necessary routine of work and rest, diet.		
13	Determining prognosis and preventive measures for the given patient.		

Solving practical skills are assessed with "1", "0,5", "0".

Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

STUDY N3.

Intestinal infectious with the predominantly lesion of colon: Shigellosis, Amebiasis. Yersiniosis, Pseudotuberculosis. Protozoal intestinal invasions: Giardiasis, Balantidiasis.

Data

As a result of the theme study student must know the followings questions:

1. Sources of Shigellosis and ways of its transmission, peculiarities of modern epidemiological process.
2. Pathogenesis of Shigellosis.
3. Clinical classification of Shigellosis.
4. Peculiarities of shigellosis clinical course, depending on clinical form and agent.
5. Criteria of severity of Shigellosis.
6. Complications of the disease and their onset terms.
7. Differential diagnostic of Shigellosis, Salmonellosis, Escherichiosis, Amebiasis, Nonspecific ulcerative colitis, Tumor of large intestine.
8. Methods of laboratory diagnostic of Shigellosis.
9. Endoscopic picture of colon mucosa in patients with Shigellosis and Amebiasis.
10. Therapeutic approach in case of emergency states.
11. The main directions of treatment of patients with Shigellosis (antibacterial, pathogenetic and symptomatic treatment) depending on severity of disease.
12. Principles of prophylaxis.
13. The rules of discharging of patients from hospital and dispensary observation over convalescents after Shigellosis.
14. Etiology and epidemiology of Amebiasis.
15. Pathogenesis of Amebiasis, life cycle of Amebas.
16. Clinical classification of Amebiasis according WHO and clinical manifestation depending on form of disease.
17. Clinical manifestations of intestinal and extra intestinal amoebiasis.
18. Diagnostic of Amebiasis.
19. Amebic dysentery complications.
20. Treatment of Amebiasis.
21. Prevention of Amebiasis.
22. Rules of discharging from the hospital of Amebiasis.
23. Etiology and epidemiology of Balantidiasis and Giardiasis.
24. Pathogenesis of Balantidiasis and Giardiasis.
25. Clinical classification of Balantidiasis and Giardiasis.
26. Complications of Balantidiasis and Giardiasis.
27. Differential diagnostic of Balantidiasis, Amebiasis and Giardiasis.
28. Methods of laboratory diagnostic of Balantidiasis and Giardiasis.
29. The main directions of treatment of patients with Balantidiasis and Giardiasis (etiologic, pathogenetic and symptomatic treatment) depending on severity of disease.
30. Principles of Balantidiasis and Giardiasis prophylaxis.
31. The rules of discharging of patients from hospital and dispensary observation over convalescents after Balantidiasis and Giardiasis.
32. Source and routes of Yersiniosis transmission.
33. Pathogens of Yersiniosis (Pseudotuberculosis, Intestinal Yersiniosis) and their properties.
34. Clinical forms of Pseudotuberculosis, Intestinal Yersiniosis.
35. Clinical symptoms depending on the form of Yersiniosis and Pseudotuberculosis.
36. Differential diagnostics of Yersiniosis and Pseudotuberculosis.
37. Laboratory diagnostics of Yersiniosis and Pseudotuberculosis.
38. Treatment of Yersiniosis and Pseudotuberculosis.
39. Prophylaxis of Yersiniosis and Pseudotuberculosis.
40. Rules of discharge from hospital and clinical supervision of Yersiniosis convalescents.
41. Classification of helminthiasis. Influence of helminthes on the humane organism. Methods of laboratory diagnostics of helminthiasis.
42. Ascariasis, enterobiasis, trichocephalosis, ancylostomiasis, strongyloidiasis, trichinellosis, dirofilariosis. Etiology, epidemiology, geographical widespread of nematodoses.
43. Life cycles and pathogenesis of nematodoses. Clinical manifestations and clinical course of nematodoses.
44. Laboratory diagnostics of nematodoses, differential diagnosis, complication of nematodoses.
45. Modern methods of treatment. Indication to hospitalization. Principles of prophylaxis.
46. Toxocariasis. Etiology, epidemiology, pathogenesis, clinical course, laboratory diagnostics, differential diagnosis, complication, prognosis. Principles of treatment and prophylaxis.
47. Strongyloidiasis as AIDS-associated invasion.
48. Diphyllbothriasis, taeniarhynchosis, taeniasis, cysticercosis, hymenolepiasis, echinococcosis. Etiology, epidemiology, geographical widespread of cestodoses.
49. Classification of helminthiasis. Influence of helminthes on the humane organism. Methods of laboratory diagnostics of helminthiasis.
50. Ascariasis, enterobiasis, trichocephalosis, ancylostomiasis, strongyloidiasis, trichinellosis, dirofilariosis. Etiology, epidemiology, geographical widespread of nematodoses.
51. Life cycles and pathogenesis of nematodoses. Clinical manifestations and clinical course of nematodoses.
52. Laboratory diagnostics of nematodoses, differential diagnosis, complication of nematodoses.
53. Modern methods of treatment. Indication to hospitalization. Principles of prophylaxis.
54. Toxocariasis. Etiology, epidemiology, pathogenesis, clinical course, laboratory diagnostics, differential diagnosis, complication, prognosis. Principles of treatment and prophylaxis.
55. Strongyloidiasis as AIDS-associated invasion.
56. Diphyllbothriasis, taeniarhynchosis, taeniasis, cysticercosis, hymenolepiasis, echinococcosis. Etiology, epidemiology, geographical widespread of cestodoses.
57. Life cycles and pathogenesis of cestodoses. Clinical manifestations and clinical course of cestodoses.

58. Laboratory diagnostics of cestodosis, differential diagnosis, complication of cestodosis.
59. Principles of the treatment. Indication to hospitalization. Principles of prophylaxis.
60. Alveococcosis. Etiology, epidemiology, pathogenesis, clinical course, laboratory diagnostics, differential diagnosis, complication, prognosis. Principles of treatment and prophylaxis.
61. Etiology, epidemiology, geographical widespread of trematodosis.
62. Life cycles and pathogenesis of trematodosis.

Clinical manifestations and clinical course of nematodosis.

63. Laboratory diagnostics, differential diagnosis, complication of nematodosis.
64. Principles of the treatment and prophylaxis of nematodosis.
65. Opisthorchiasis. Etiology, epidemiology, pathogenesis, clinical course, laboratory diagnostics, differential diagnosis, complication. Modern methods of treatment. Indication to hospitalization. Principles of prophylaxis.

As a result of study of theme a student must be able to:

1. Keep the basic sanitary antiepidemic rules working with shigellosis patient.
2. Take the medical history with the estimation of epidemiological data (consumption of food products without thermal handling, contact with shigellosis patient or bacteria carrier).
3. Examine patient and find out basic symptoms and syndromes of shigellosis to make the substantiation of presumptive diagnosis.
4. Interpret the results of laboratory examination, including specific methods of diagnostic.
5. Settle serological investigations and to evaluate them.
6. Know the recto-sigmoidoscope construction.
7. Endoscopic picture of large intestine mucous changing in patients with Shigellosis, Amebiasis, Nonspecific ulcerative colitis.
8. Work out an individual plan of treatment shigellosis taking into account epidemiological data, clinical form of illness, severity of clinical process, presence of complications, allergy in anamnesis, concomitant pathology.
9. Give recommendations concerning the regimen, diet, examination, supervision to convalescents.
10. Recognize the presence of specific complications.
11. Render the first aid in the case of ITSh, hypovolemic shock.
12. Work out a plan of preventive measures in the nidus of infection.
13. Examine the patient and reveal the main symptoms and syndromes of Amebiasis, Balantidiasis and Giardiasis.
14. Perform differential diagnostics of Amebiasis, Balantidiasis and Giardiasis.
15. Compose the plan of the laboratory and additional examination of the patient with Amebiasis, Balantidiasis and Giardiasis and to interpret the results of the laboratory investigation.
16. Work out an individual plan of treatment of Amebiasis, Balantidiasis and Giardiasis.
17. To know rules of discharge of patient with Amebiasis, Balantidiasis and Giardiasis from

inpatient hospital.

18. Draw up medical as far as the formulation of diagnosis "shigellosis", "amoebiasis", "balantidiasis" is concerned (an urgent report to the sanitary epidemiological station).
19. Examine the patient and find out the main symptoms and syndromes of Yersiniosis (Pseudotuberculosis, Intestinal Yersiniosis).
20. Make up a plan of patient's laboratory and instrumental examination for patient with supposed Yersiniosis (Pseudotuberculosis, Intestinal Yersiniosis).
21. Compose individual plan of the treatment of yersiniosis pseudotuberculosis with account of the epidemiological data, stage of the disease, presence of the complications, severity of state, allergological anamnesis.
22. Compose the plan of prophylactic measures of yersiniosis and pseudotuberculosis
23. Give recommendations relatively to regime, diet, examination in the period of convalescence. Collect anamnesis of the disease of the patient with helminthiasis with estimation of the epidemiological data;
24. Examine the patient and reveal the main symptoms and syndromes of helminthiasis;
25. Provide differential diagnostics of helminthiasis;
26. Compose the plan of the laboratory and additional examination of the patient with helminthiasis;
27. Interpret the results of the specific methods of the diagnostics of helminthiasis;
28. Determine complications of helminthiasis;
29. Compose individual plan of the treatment of patient with helminthiasis with accounting of the disease stage and allergological anamnesis;
30. Compose the plan of epidemic and prophylactic measures in the focus of helminthiasis;
31. Give recommendations relatively to regime, diet, examination in the period of convalescence to the patient with helminthiasis.

Shigellosis. Etiology: _____, Gram-staining _____ Types of Shigellae: 1. _____
 2. _____ 3. _____ 4. _____ Stability to environment
 conditions: _____

The source of infection: _____, ways of transmission _____
 _____, seasonality: _____, groups of risk : _____

Stages of pathogenesis: _____

Clinical classification: _____

Clinical manifestation of acute colitis form: _____

Epidemiological and clinical peculiarities of Shigellosis, caused with *S. flexneri*: _____

Epidemiological and clinical peculiarities of Shigellosis, caused with *S. sonnei*: _____

Differential diagnosis of diseases with colitis syndrome

Signs	Shigellosis	Amebiasis	Yersiniosis	Campilo- bacteriosis	Ulcerative colitis
Onset					
Temperature					
Intoxication					
Systemic infection					
Character of abdominal pain, localization, intensity					
Changing of stool					
Localization of pathological process					
Epidemiological history					
Changing in blood test					
Coprocytogram					
Liver					
Spleen					

Complications of Shigellosis: _____

Laboratory investigation of Shigellosis: Blood test: _____

Coprocytogram: _____

Bacteriological investigation: _____

Serologic tests: _____

Rectosigmoidoscopy (signs). Types of proctosigmoiditis: _____

Catarrhal _____

Hemorrhagic _____

Erosive _____

Ulcerative _____

Diphtheric _____

Treatment of Shigellosis

	Mild form	Moderate and severe form
Etiotropic treatment		
Detoxication		

	Mild form	Moderate and severe form
Recovery of intestinal microbial flora		
Symptomatic treatment		

Amebiasis Pathogen: family: _____ genus: _____ species: _____
 Staining: _____ Forms of Amebas and their resistance in environment: _____

Source of infection: _____ ways of transmission _____
 Seasonality _____ spreading in the world _____
 Pathogenesis and life cycle of Amebas _____

Clinical classification of Amebiasis (WHO) _____

Clinical manifestation of intestinal Amebiasis: _____

Clinical manifestation of extraintestinal forms of Amebiasis

Differential-diagnostic signs of colon endoscopic picture

Endoscopic signs	Shigellosis	Amebiasis	Ulcerative colitis

Diagnosis of Amebiasis: _____

Treatment of Amebiasis

Treatment of choice	Alternative regimen
Intestinal Amebiasis (Acute colitis)	
Asymptomatic carriers (luminal agents)	

Amebic liver abscesses	

Intestinal yersiniosis. Etiology. Family: _____ Genus: _____ Species: _____
 Gram's stain: _____ Shape of microorganism: _____ Respiration type: _____
 Sporogenesis: _____ Presence of capsule: _____ Mobility: _____ Factors of pathogenicity /
 antigen structure: _____
 Resistance: _____
 Epidemiology: Sources of infection: _____
 Routes of transmission: _____
 Factors of transmission: _____ Seasonality: _____
 Risk groups: _____ Immunity: _____
 Pathogenesis. _____

Classification. Forms: I. _____ Variants: 1. _____ 2. _____
 3. _____ 4. _____ 5. _____ 6. _____
 II. _____ Variants: 1. _____ 2. _____ 3. _____
 III. _____ Variants: 1. _____ 2. _____ 3. _____
 4. _____ 5. _____ 6. _____ 7. _____
 IV. _____
 By duration: I. _____ II. _____ III. _____
 By severity: I. _____ II. _____ III. _____
 Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Pseudotuberculosis. Etiology. Family: _____ Genus: _____ Species: _____
 Gram's stain: _____ Shape of microorganism: _____ Respiration type: _____
 Sporogenesis: _____ Presence of capsule: _____ Mobility: _____ Factors of pathogenicity /
 antigen structure: _____
 Resistance: _____
 Epidemiology: Sources of infection: _____
 Routes of transmission: _____
 Factors of transmission: _____ Seasonality: _____
 Risk groups: _____ Immunity: _____
 Pathogenesis. _____

Classification. Forms: I. _____ Variants: 1. _____ 2. _____

3. _____ 4. _____ 5. _____ 6. _____
 II. _____ III. _____ IV. _____
 V. _____ VI. _____ VII. _____
 By duration: I. _____ II. _____ III. _____
 By severity: I. _____ II. _____ III. _____
 By course: I. _____ II. _____ III. _____
 Clinic (basic symptoms and syndromes): _____

Characteristics of clinical representations of some diseases with exanthema

Nosology Sign	Pseudotuberculosis	Yersiniosis	Typhoid fever	Enterovirus infection	Scarlet fever
Fever					
Intoxication					
Mesenteric adenitis					
Impairment of tonsils					
Eruption					
Jaundice					
Tachycardia					
Arthralgia					
Banti's syndrome					

Laboratory indices: _____

Complications: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Giardiasis. Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Balantidiasis. Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Pathogenesis. _____

Biohelminths _____

Geohelminths _____

Contact helminthes _____

Ascariasis. Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Enterobiasis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Trichocephalosis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Ancylostomiasis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Strongyloidiasis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

The dynamics of the clinical symptoms of Nematodosis

Symptoms	Acute (migration) phase			Chronic phase		
	Ascariasis	Ancylostomiasis	Strongiloidiasis	Ascariasis	Ancylostomiasis	Strongiloidiasis
General toxic						
Allergic						
Increase the temperature						
Arthralgia						
Myalgias						
Skin rash						
Lesion of the respiratory tract						
Pain in the chest						
Cough with sputum						
Löffler's syndrome						
Asthmatic bronchitis						
Lesion of the gastrointestinal tract						
Abdominal pain						
Diarrhea						
Leukocytosis						
Marked eosinophilia						
Moderate eosinophilia						
Anemia						
Hypoproteinemia						

Trichinellosis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Dirofilariasis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Toxocariasis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Diphyllobothriasis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Taeniarhynchosis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Taeniasis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Cysticercosis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

The clinical manifestations of cystercercosis in dependence on localization of cystecercs

Symptoms	Eyes	Cerebral hemispheres	IV Ventricle	Basis cerebri
Headache				
Dizziness				
Nausea				
Vomiting				
Epileptic attacks				
Disorders of psychics (dimension, hallucinations)				
Dyspnea				
The harsh of the state in impairment the change of the body position				
Disorder of vestibular conduction				
Paresis, paralyses				
Decrease of the hearing				
Progressive impairment of the vision				

Hymenolepiasis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Echinococcosis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Alveococcosis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Opisthorchiasis: Pathogen: family: _____ genus: _____ species: _____

Staining: _____ Resistance in environment: _____

Source of infection: _____ ways of transmission _____

Seasonality _____ spreading in the world _____

Pathogenesis and life cycle _____

Clinical classification _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis: _____

Test tasks

№ 1

Rules of discharging patient from a hospital after shigellosis, which do not belong to the decreed group:

- | | |
|---|--|
| a) Not 3 days after stool and temperature normalization | bacteriological analysis, carried out in 2 days after antibacterial therapy termination |
| b) Apparent clinical recovery | e) Presence of 1 negative results of stool bacteriological analysis, carried out in 2 days after antibacterial therapy termination |
| c) Presence of 2 negative results of stool bacteriological analysis | |
| d) Presence of 3 negative results of stool | |

№ 2

Coprocytogram at intestinal amoebiasis reveals:

- | | |
|--|---|
| a) Considerable amount of vitriform mucus, erythrocytes, eosinophils, Charco-Leyden crystals | amount of mucus |
| b) Grouped erythrocytes are located as columns, there are leucocytes within eyesight | d) Increased amount of neutral fat, undigested muscular |
| c) Erythrocytes are within all eyesight, small | e) fibers, starched corns. |
| | f) Within the limits of norm |

№ 3

For specific treatment of yersinioses the following is used:

- | | |
|-----------------|--------------------|
| a) Penicillin | d) Chloramphenicol |
| b) Erythromycin | e) Ciprofloxacin |
| c) Lincomycin | |

What are the phases of the pathogenesis in ascariosis?

- | | |
|----------------------|-----------------------------|
| a) bacteremia | d) late (intestinal) |
| b) early (migratory) | e) parenchymatous diffusion |
| c) extraintestinal | |

№ 4

What is the epidemiology of enterobiosis?

- | | |
|---|-------------------------------------|
| a) It is anthroponotic | d) It is contagious helminthiasis |
| b) It is per oral helminthiasis | e) It is transmissive helminthiasis |
| c) It is per cutaneous way of the infection | |

№ 5

What is the place of the parazitation of the agent of strongyloidoses

- | | |
|---|----------------------|
| a) in the upper sections of the small intestine | d) in the bill ducts |
| b) in the pyloric part of the stomach | e) in the liver |
| c) in the large intestine (cercum) | |

№ 6

What is the duration of the life of the adult forms in echinococcosis ?

- | | |
|--|---------------------------------|
| a) It is continued from 6 months till 1 year | b) It is continued till 1 month |
|--|---------------------------------|

- c) It is continued from 1 year till 3 years
- d) It is continued more than 3 years

- e) It is continued 7 days

№ 7

What is epidemiology of hymenolepiasis?

- a) It is per oral helminthiasis
- b) It is per cutaneous helminthiasis
- c) It is contagious helminthiasis
- d) It is transmissive helminthiasis
- e) It is especially dangerous disease

№ 8

What treatment should be administered in pork tapeworm?

- a) vermitin (phenasalum; Niclosamidum)
- b) decaris (levamysol)
- c) mebendazol
- d) Filicis maris acterium
- e) Chloxil

№ 9

The patient of 42 years old complains on acute headache, tenderness of the muscles of the extremities. The general weakness, fever, edemas around the eyes developed a week ago. The physician diagnosed influenza and prescribed Amixin IC. There was no improvement. His wife also fell ill. She complains of muscle pain, bad condition. They had eaten fried pork, bought 12 days ago. The temperature is 38,3°C, the face is edematous. The muscles of extremities are painful. The abdomen is soft. Stool is 2 times per day, gruel. In the blood count: HB-133 g/l, L-15,0, B-1 %, E-40 %, U-1 %, B-7 %, S-3%, L-8 %, M-6%, ESR-25 mm/h.

1. *What is the preliminary diagnosis?*
2. *What methods are used for diagnostics of the disease?*
3. *What therapy would you prescribe?*

№ 10

The patient of 20 years old complains of weakness, cough with sputum, increase of the temperature up to 37,6°C, itch. He fell ill 3 weeks ago. Nettle itching rash was marked on the skin of the trunk and extremities.

Objectively: the dermal integuments are pale. The rash is absent. The tongue is moist, coated by white fur. The peripheral lymphatic nodules are no palpated. The pulse rate is 78 per minute, rhythmical. Heart sounds are clean. The respiration rate is 36 per minute. On percussion of the lungs a shortening of the sound is determined at the right area under clavicle. The respiration is harsh with prolonged expiration. The dry rales and crepitating are determined. The abdomen is soft, painless on palpation. The liver and the spleen are no palpated. Stool is normal. Diuresis is preserved. On x-ray examination infiltration is marked in the upper lobe of the right lung. The infiltration disappeared in 6 days. In the blood count: erythrocytes – 4.5×10^{12} , hemoglobin – 140 g/l, eosinophils – 28%, neutrophils, band – 7%, neutrophils, segments – 38%, lymphocytes – 23%, monocytes – 4%.

1. *What is the preliminary diagnosis?*
2. *What methods are used for diagnostics of the disease?*
3. *What therapy would you prescribe?*

№ 11

36-year-old woman is a worker of the fish plant. She came to the polyclinic with complaints of heartburn, unstable stool, and weakness. The itching rash periodically developed on the body. On examination: her skin is pale, single elements of urticarial rash are marked. Abdomen is soft, slightly painful around the umbilicus. On examination of the blood sample: hyperchromatic anemia, eosinophilia to 9% are marked.

1. *What is the preliminary diagnosis?*
2. *What methods are used for diagnostics of the disease?*
3. *What therapy would you prescribe?*

№ 12

The patient of 40 years old was referred with complaints of high temperature to 39°C, pains in the eyes and muscles. The disease began with general weakness, digestive disturbances. The patient had pork, bought from the neighbor two weeks ago.

Objectively: there are edema of the face, plentiful exudative-papular eruption on the body, adynamia, and symptoms of myocarditis. In the blood count eosinophilia (45 %) is marked.

1. *What is the preliminary diagnosis?*
2. *What methods are used for diagnostics of the disease?*
3. *What therapy would you prescribe?*

№ 13

45-years-old female, worker of hothouse, was admitted to the hospital with complains on cough with scanty sputum and periodic attacks of suffocation and weakness. She felt ill whitening 2 weeks.

On investigation: The patient's common condition is satisfactory. There is itching urticarial rash on the skin of body. Diffuse whistling rales are listening over the lungs. Temperature is subfebrile. X-ray examination shows indistinct infiltrates in low parts of lungs. BT: erythrocytes – $4,3 \times 10^{12}/l$, leucocytes – $9,1 \times 10^9/l$, eosinophils - 20%, neutrophils - 58%, lymphocytes - 10%, ESR - 10 mm/h.

- | | |
|---|--|
| <ol style="list-style-type: none"> A. <i>What is your preliminary diagnosis?</i> <ul style="list-style-type: none"> a) extra intestinal amebiasis b) enterobiasis c) salmonellosis d) taeniasis | <ol style="list-style-type: none"> C. <i>What laboratory tests are used for diagnosing of this disease?</i> <ul style="list-style-type: none"> a) blood test b) parasitological investigation c) bacteriological test |
|---|--|

- e) ascariasis
- B. *Choose the drug, need for treatment of this patient?*
 - a) chloramphenicol
 - b) diloxanide furoate
 - c) metronidazole
 - d) praziquantel
 - e) albendazole
- d) serological tests
- e) microscopic investigation of sputum
- D. *What clinical signs are typical for this disease?*
 - a) urticarial rash
 - b) cough
 - c) skin itching
 - d) high temperature
 - e) pleural exudate

№ 14

Patient A., 22 years old, a student, was admitted to isolation hospital on the 3rd day of illness with complaints of weakness, colicky cramp-like abdominal pain, frequent and liquid stool with mucus and blood. The disease onset was marked by the increase of body temperature, headache, tenesmus, frequent stool. He lives at the separate flat with modern conveniences. All family members are healthy. A week ago the patient came back from the village, where similar disease cases were registered.

The patient's state is of moderate severity, body temperature is 37.5 °C. Skin is pale; tongue is moist, coated with white film. Heart sounds are dull. The abdomen is moderately tympanitic (swollen), painful in colon area. Sigmoid colon is spastic, acute painful. Stool is liquid with mucus and blood streaks (10 times per day).

1. *Formulate suggested diagnosis.*
2. *Prescribe the examination.*
3. *Prescribe treatment.*

№ 15

Patient 25 years old suddenly fall ill. A disease was begun with a chill, headache, dull pain in joints, feelings of scratching in a throat, increases of temperature up to 38-39°C, abdominal pain, vomiting, liquid fetid stool. On the 4th day of illness the small spotted rash appeared on a trunk and extremities. There is the state of moderate severity on examination. Face is hyperemic. Mucous membrane of pharynx is also hyperemic and edematous. Pulse – 68. Heart sounds are weakened. Tongue is coated. Abdomen is soft, painful in a right iliac area. Liver is palpated on 1 sm. below than edge of rib. Its edge is soft, rounded.

- A. *What diagnosis is the most probable?*
 - a) paratyphoid,
 - b) yersiniosis,
 - c) salmonellosis,
 - d) food toxin infection,
 - e) spotted fever.
- B. *What clinical symptoms are most typical?*
 - a) chill, fever of 38-39°C,
 - b) pain in a throat,
 - c) pain in joints,
 - d) pain in abdomen,
 - e) liquid stool.
- C. *What methods of laboratory diagnostics are used at this disease?*
 - a) bacteriological,
 - b) reaction of indirect hemagglutination,
 - c) complement fixation test,
 - d) reaction of inhibition of hemagglutination,
 - e) ELISA.
- D. *Methods of disease treatment:*
 - a) chloramphenicol,
 - b) tetracycline,
 - c) gentamycin sulfas,
 - d) furazolidonum,
 - e) chloridinum.

№ 16

24-years old patient produce a disease with acute onset, light chills, weakness, headache, increasing of temperature up to 38°C followed with spastic abdominal pain predominantly in region of sigmoid colon, irradiated in rectum. The pain intensified before defecation; stool was liquid with admixtures of mucus and blood up to 12 times a day. The day before of disease he ate cottage cheese bought at the market.

On observation: patient's condition is of moderate severity. His skin is pale. The tongue is moist and white coated. The abdomen is painful on palpation along the colon; sigmoid colon is spastic and painful.

- A. *What is your preliminary diagnosis?*
 - a) campylobacteriosis
 - b) shigellosis
 - c) amebiasis
 - d) salmonellosis
 - e) giardiasis
- B. *What symptoms are characteristic for this disease?*
 - a) constant pain around umbilicus
 - b) spastic sigmoid colon
 - c) spastic pain in low part of abdomen
 - d) pain in ileocaecal region
 - e) enlargement of liver
- C. *What laboratory tests are used for diagnosing of this disease?*
 - a) blood test
 - b) coprologic investigation
 - c) culture of feces
 - d) serologic investigation
 - e) parasitological investigation
- D. *What drugs are used for treatment of this disease?*
 - a) nifuroxaside
 - b) ornidazole
 - c) ciprofloxacin
 - d) metronidazole
 - e) penicillin

№ 17

52-year old male began ache gradually. He noticed that his feces became semi-fluid, 2-3 times a day. Later on his stool became more frequent (up to 10 times a day) and liquid with a large quantity of glassy mucus with blood, imaging

red raspberry jelly. On investigation: Temperature is 37,2°C. Patient's skin is pale, abdomen is soft, painful on palpation along colon, predominantly along spastic ascendant its part and caecum.

A. *What is your preliminary diagnosis?*

- a) shigellosis
- b) intestinal amebiasis
- c) salmonellosis
- d) escherichiosis
- e) giardiasis

B. *What symptoms are characteristic for this disease?*

- a) high temperature;
- b) abdominal pain;
- c) nausea and vomiting;
- d) liquid stool with large quantity of mucus, mixed with blood
- e) dehydration.

C. *What laboratory tests are used for diagnosing of this disease?*

- a) blood test
- b) parasitological investigation
- c) culture of feces
- d) serologic tests.
- e) rectosigmoidoscopy

D. *What drugs is used for treatment of this disease?*

- a) ampicillin
- b) diloxanid furoate
- c) metronidazole
- d) mebendazole
- e) norfloxacin

Recommended medicines (To write prescriptions)

- | | |
|-------------------------------|------------------------|
| 1. Ampicillin | 21. Linex |
| 2. Bactisubtil | 22. Metronidazolum |
| 3. Bifidumbacterine | 23. Nifuroxasid |
| 4. Bifiform | 24. Nimesulid |
| 5. Biosporine | 25. Norfloxacin |
| 6. Carbenicillinum dinatricum | 26. No-spanum |
| 7. Chloramphenicole | 27. Papaverine |
| 8. Chloridinum | 28. Paromomycin |
| 9. Chloroquine | 29. Tinidazole |
| 10. Ciprofloxacinum | 30. Albendazole |
| 11. Clarithromycin | 31. Ivermectin |
| 12. Clindamycin | 32. Laevomizole |
| 13. Doxycycline | 33. Mebendazole |
| 14. Enterole | 34. Phthalazole |
| 15. Erhythromicin | 35. Piperazine citrate |
| 16. Festal | 36. Praziquantel |
| 17. Furazolidon | 37. Pyrantel pamoate |
| 18. Gentamycini sulfas | 38. Thiabendazole |
| 19. Indometacinum | |
| 20. Lactulose | |

EXAMINATION OF PATIENT (TRANSACTIONS OF ANSWERS)

Patients first name, second name and patronymic, age, sex			Points
1	Complaints		
	Anamnesis of disease		
	Anamnesis epidemica		
	Anamnesis of life		
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.		
3	Cardiovascular system examination.		
4	Physical examination of the respiratory system.		
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).		
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.		
7	Basic syndrome.		
8	Intrasymptom differential diagnosis.		
9	Preliminary clinical diagnosis.		
10	Examination plan.		
11	Assessment of laboratory findings and interpretation of instrumental findings.		
12	Determining principles of treatment, tactics of management, the necessary routine of work and rest, diet.		
13	Determining prognosis and preventive measures for the given patient.		

Solving practical skills are assessed with "1", "0,5", "0".

Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

STUDY N4.

Botulism. Poliomyelitis. The urgent conditions of patients on infectious diseases with fecal-oral transmission. Principles of diagnostics and medical aid.

Data

As a result of the theme study student must know the followings questions:

1. Etiology of Botulism (causative agent and its serovars, toxins and their properties).
2. Epidemiology of Botulism infection and ways of its transmission.
3. Pathogenesis of Botulism.
4. Clinical symptoms of early (initial) period of Botulism.
5. Classification, clinical manifestation of the main syndromes of Botulism (common toxic, vegetative, ophthalmoplegic, bulbar, myoplegic and order of their development).
6. Criteria of Botulism severity.
7. Complications of Botulism. Administration of the urgent conditions.
8. Methods of laboratory diagnostic of Botulism.
9. Differential diagnostic of Botulism with encephalitis, poliomyelitis, and myasthenia, mushrooms poisoning, poisoning with methanol and Belladonna,).
10. Modern methods of treatment. Treatment with antitoxic sera according to severity of Botulism. Medical care patient on the pre-admission stage.
11. Indication to hospitalization, order of discharge from the in-patient infectious department. Prognosis. Principles of prophylaxis.
12. Causative agents of enteroviral infections and poliomyelitis.
13. Source and routes of transmission in enterovirus and polio infections.
14. Pathogenesis of enterovirus and polio infections.
15. Clinical classification and clinical features of different forms enterovirus infection and poliomyelitis.
16. Methods of laboratory investigation polio and enterovirus infections.
17. Differential diagnosis poliomyelitis and enterovirus infection with viral encephalitis, acute respiratory viral infections, botulism.
18. Principles of therapy patients with enterovirus infection and poliomyelitis
19. Rules of discharge from hospital and clinical supervision of enterovirus and polio infections convalescents. Dehydration shock: definition;
20. Pathogenesis of the dehydration shock;
21. Clinical and laboratory diagnostics of water-electrolyte imbalance at the different levels of the dehydration;
22. Differential diagnostics of dehydration shock with the shock states of other genesis.
23. Principles of treatment of the dehydration shock, acute care to the patient on the pre-admission stage.
24. Enterorrhagia and other surgical complications of intestinal infectious diseases.
25. Pathogenesis, clinical and laboratory diagnostics of the enterorrhagia;
26. Differential diagnosis of the enterorrhagia;
27. Principles of treatment of the enterorrhagia. First aid of the patient on the pre-admission stage.

As a result of study of theme a student must be able to:

1. Observe the main principles of work near the patient's bed;
2. Ask history case with analysis of epidemiological data;
3. Provide the examination and to discover the main symptoms and syndromes of botulism;
4. Prove the clinical diagnosis;
5. Make the differential diagnosis of botulism;
6. Perceive complications of botulism, urgent conditions;
7. Perform the urgent arrangement for patients with anaphylactic shock;
8. Make the plan of laboratory and instrumental investigation of the patient;
9. Evaluate the sera allergic test;
10. Analyze the results of laboratory investigation;
11. Make the individual plan of treatment for patients with botulism;
12. Know the rules of treatment with specific antitoxin.
13. Perform the techniques of stomach lavage and high enema;
14. Administrate the urgent help on the period before hospitalization;
15. Form the medical documents;
16. Find meningeal signs.
17. Estimate neurologic condition.
18. Estimate results of cerebro-spinal fluid investigation.
19. To know rules and term serologic tests of blood in case enterovirus and polio infection.
20. Follow the basic work rules at the bedside of an urgent conditions patient;
21. Take the history from a patient;
22. Examine a patient, to prove the diagnosis for a timely patient referral to a hospital;
23. Carry out the differential diagnosis of the urgent conditions (dehydration shock, an enterorrhagia);
24. Make a plan of the laboratory and additional patient examination;
25. Interpret the results of the basic laboratory and specific patient examination with an enterorrhagia, and dehydration shock;
26. Make an individual treatment plan, taking into account the epidemiologic evidence, the stages of disease, to provide pre-admission emergency cover;
27. Give the references about a regimen, a diet, an examination, a surveillance during recovery period;
28. Issue the medical documentation.

Botulism. Etiology: family _____ genus _____ serovars _____
Toxin _____ Gram-staining _____ spore-formation _____ stability to heating of vegetative form _____,
stability to heating of spores _____, stability to heating of toxin _____ Source of infection _____
_____ Ways of transmission _____ Seasonality _____ Spreading _____
Pathogenesis (stages) _____

Acetylcholine structures, which are injured in patients:

1. _____ 3. _____
2. _____ 4. _____

The causes of acute respiratory failure: 1. _____ 2. _____

3. _____ 4. _____

The types of hypoxia: 1. _____ 2. _____

3. _____ 4. _____

Clinical manifestation of initial period: _____

The main clinical syndromes and their characteristic:

1. _____
2. _____
3. _____

The main paralytic syndromes:

1. _____
2. _____
3. _____
4. _____

Injuring of which cranial nerves contributes to development of ophthalmoplegic syndrome?

1. _____, 2. _____, 3. _____

Injuring of which cranial nerves contributes to development of bulbar syndrome?

1. _____, 2. _____, 3. _____

Criteria of diagnostic: _____

Signs of breathing disorders: _____

Complications: 1. _____, 2. _____,

3. _____, 4. _____, 5. _____

Laboratory diagnostic: _____

Differential diagnostic (common and distinguishing signs):

Food poisoning _____

Methanol poisoning _____

Belladonna poisoning _____

Encephalitis _____

Poliomyelitis _____

Diphtheria _____

Acute disorders of brain circulation _____

Treatment of Botulism:

One doze of polyvalent antitoxin consists: antitoxin type A _____, type B _____, type E _____

Dosage of polyvalent antitoxin for patient with mild disease _____, with moderate _____,
with severe _____

Order of introduction of antitoxin:

1-t step _____

2-nd step _____

3-d step _____

Fractional desensitization method: _____

Urgent treatment of anaphylaxis: _____

Pathogenetic treatment: _____

Treatment with antibiotics (drug, dose, course of cure) _____

Circumstances of discharging: _____

Enterovirus infection, poliomyelitis. Causative agent: genus _____ family _____

Species 1. _____ 2. _____ 3. _____

Source of infection: 1. _____ 2. _____ mechanism of transmission:

1. _____ 2. _____ routes of transmission: _____ seasonality _____

Stages of pathogenesis: 1. _____ 2. _____ 3. _____

4. _____ 5. _____ 6. _____ 7. _____

What part of CNS virus effects? _____

Clinical forms of enterovirus infection:

1. _____ 2. _____ 3. _____

4. _____ 5. _____ 6. _____

7. _____ 8. _____ 9. _____

10. _____ 11. _____ 12. _____

13. _____ 14. _____ 15. _____

16. _____ 17. _____

Clinical classification of poliomyelitis:

1. _____ 2. _____ 3. _____ 4. _____

Clinical variants of paralytic form: 1. _____ 2. _____

3. _____ 4. _____

Clinic of spinal form of poliomyelitis: _____

Description of paralysis: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Criteria of diagnosis: 1. _____ 2. _____ 3. _____ 4. _____

5. _____ 6. _____ 7. _____ 8. _____

Laboratory investigation: Blood test: _____

Virus investigation: _____

Serologic investigation: _____

Complications: _____

Treatment of poliomyelitis: _____

Types of poliomyelitis vaccines: 1. _____ 2. _____

Differential diagnosis

Symptoms	Enterovirus infection	Poliomyelitis	Botulism	Viral encephalitis	Meningococcal meningitis
Onset					
Fever					
Intoxication					
Phases of clinical course					
Description of paralysis					
Meningitis					
Mialgia					
Disturbances in sensitiveness					
Rash					

Dehydration shock. Definition: _____

Enumerate diseases which are attended by a dehydration syndrome: _____

Pathogenesis stages: _____

Clinical picture depending on fluid loss: _____

Dehydration degree estimation: _____

Main lethality causes: _____

Plan of the patient examination with dehydration syndrome: _____

CBC of the patient with a dehydration syndrome: _____

Differential diagnosis: _____

Complex of medical measures at a dehydration syndrome: _____

Rehydration solutions: _____

Small bowel perforation. Definition: _____

Etiology: _____

Pathogenesis: _____

Clinical presentations of the bowel perforation: _____

Acute care: _____

Intestinal bleeding. Definition: _____

Etiology: _____

Pathogenesis: _____

Clinical presentations: _____

Urgent treatment: _____

Test tasks

№ 1

Botulism belongs to:

- | | |
|--------------------------|----------------------|
| A. Food toxic infections | D. Virus infections |
| B. Blood infections | E. Food intoxication |
| C. Intestinal infections | |

№ 2

The factors of transmission of botulism

- | | |
|---|--------------------------|
| A. Products with sports of exciter with anaerobe conditions | C. The unwashed fruits |
| B. The non qualitative vegetables | D. All answers are right |
| | E. The milk products |

№ 3

The dose and the structure of polyvalent serum:

- | | |
|--|--|
| A. 10000 IU for types A and E, 5 000 ME for type B | D. 10000 IU for types B and E, 5000 ME for type A |
| B. 5000 IU for types C and E, 10 000 ME for type A | E. 5000 IU for types A and E, 10 000 ME for type B |
| C. 5000 IU for types A and E, 10 000 ME for type C | |

The hypovolemic shock develops owing to fluid loss at:

- | | |
|-------------------------|-----------------------------------|
| A. all answers are true | B. bleeding (a hemorrhaged shock) |
|-------------------------|-----------------------------------|

C. vomiting and diarrheas

D. a long-term fever

№ 4

What type of a diarrhea is typical for a salmonellosis?

- A. secretory
- B. exudative

- C. osmotic
- D. mixed

№ 5

Normal sodium concentration in blood plasma:

- A. 135-150 mmol/l
- B. 125 mmol/l

- C. 170 mmol/l
- D. 110 mmol/l

№ 6

A pathological state which develops owing to catastrophic reduction of a circulating fluid volume and electrolytes loss:

- A. dehydration shock
- B. anaphylactic shock

- C. infectious-toxic shock
- D. hemorrhagic shock

№ 7

The hypovolemic shock is:

- A. IV degree dehydration
- B. I degree dehydration

- C. II degree dehydration
- D. III degree dehydration

№ 8

More often the dehydration shock develops at:

- A. acute intestinal diseases
- B. respiratory diseases

- C. blood infections
- D. diseases of investments

№ 9

The diarrheic syndrome and vomiting are the reason:

- A. dehydration shock
- B. anaphylactic shock

- C. infectious-toxic shock

№ 10

Compensated dehydration shock develops:

- A. because of the hemodynamic changes absence in peace
- B. at a decrease of the systolic blood pressure

- C. at a hyperthermia
- D. at hypohemoglobinemia

№ 11

The sub compensated dehydration shock develops at:

- A. decrease of the systolic blood pressure
- B. systolic blood pressure boost

- C. diastolic blood pressure decrease
- D. diastolic blood pressure boost

№ 12

A normal indices of impalpable fluid losses of the adult person with 70 kg body weight is:

- A. 1000 ml per a day
- B. 500 ml per a day

- C. 700 ml per a day
- D. 1500 ml per a day

№ 13

What type of a diarrhea is typical for a salmonellosis

- A. secretory
- B. exudative

- C. osmotic
- D. mixed

№ 14

Normal sodium concentration in blood plasma:

- A. 135-150 mmol/l
- B. 125 mmol/l

- C. 170 mmol/l
- D. 110 mmol/l

№ 15

Normal potassium concentration in blood plasma:

- A. 3,5-5,5 mmol/l
- B. 2,5 mmol/l
- C. 2,0 mmol/l
- D. 4,5 mmol/l

№ 16

There is a patient in the infectious hospital reception. He has sharp features, the dark circles round his eyes, there is the suffering in his face, and his body is covered with cold sweat. The skin congregates in fold easy. He has hollow abdomen. The patient has also muscles limbs spasms. The blood pressure is lowered. Heart sounds are muffled. He has a thready pulse. A body temperature is 35 °C. According to relatives he had a repeated vomiting and a diarrhea at home. 2 days ago the patient has come back from India.

1. What is the preliminary diagnosis?
2. What methods are used for diagnostics of the disease?
3. What therapy would you prescribe?

№ 17

Two girls came to a hospital, because they had 38 °C fever, a headache, weakness, dizziness, and a pain in epigastria and round a navel, a nausea, vomiting 3 times, excrements 4 times per a night, watery diarrhea, foamy, fetid, with

mucus impurity. It is known from the history that the day before the girls ate pastries with cream which were not stored in a refrigerator. Objectively: a tongue is dry, furred by white touch, the stomach is bloated moderately, rumbles in palpation, painful in epigastria, pulse is 80, and the blood pressure is 110/70 mm mercury column.

1. *What is the preliminary diagnosis?*
2. *What methods are used for diagnostics of the disease?*
3. *What therapy would you prescribe?*

№ 18

Patient A, 40 years old, is admitted to an infectious hospital. Objectively: he is apathetic, adynamic, the consciousness is dulled. The tongue has teeth prints on the lateral surfaces and is furred up with grey-brown incrustation. The stomach is bloated, painful in palpation, liver and spleen increase. According to his wife words her husband is being ill for 4 days. He fell ill acute, the temperature had raised to 38,5 °C, repeated bile vomiting, he felt a pain in epigastria and paraumbilical areas, then he had a diarrhea, excrements were to 10 times per a day, diarrhea is watery, foamy, fetid, with slime impurity. The day before illness the man ate the soft-boiled goose eggs and mayonnaise.

1. *What is the preliminary diagnosis?*
2. *What methods are used for diagnostics of the disease?*
3. *What therapy would you prescribe?*

№ 19

The patient G., 32 years old was delivered to the infection hospital the days after eating the conserved mushrooms. The illness was with suddenly beginning. After the disappearance of nausea and vomit complains of abdomen swelling, bolt, dryness in the mouth, «the fog before eyes», the bifurcating of objects, the transgression of swallow are appeared.

The consciousness is preserved, the temperature is normal. The artery pressure is 160/110 mm of mercury column. The heart tones are deaf a little. There is the moderate tachycardia; there are no changes in lungs. The frequency of breath is 22 in minute. There are the ptosis, anisocoria, mydriasis, nystagmus, the snuffle voice. The abdomen is swelling; the spleen and the liver are not bigger. The evacuation is without pathological changes. There are the moderate leucocyteosis with the shift to the left, the acceleration of speed of settle for erythrocytes.

1. *What is the preliminary diagnosis?*
2. *What methods are used for diagnostics of the disease?*
3. *What therapy would you prescribe?*

№ 20

34-year old female felt ill acutely with sickness, vomiting, diarrhea, which quickly changed on constipation, swelling of abdomen and dryness of mouth. Then she produced disorders of vision (misty vision, bifurcation of subjects). The day before of disease she ate dried fish bought in a street hawker's stand. On examination: tongue is dry, hoarseness of voice, difficulties in swallowing, mydriasis, absence of pupil's reaction on light, blepharoptosis, vertical nystagmus, muscle weakness are present. Stool is absent.

- | | |
|---|--|
| <p>A. <i>What is your preliminary diagnosis?</i></p> <ol style="list-style-type: none"> a) Botulism b) Food poisoning c) Salmonellosis d) Encephalitis e) Acute disorder of brain circulation <p>B. <i>What symptoms are characteristic for this disease?</i></p> <ol style="list-style-type: none"> a) high temperature b) bifurcation of subjects on vision c) constipations d) plentiful liquid stool e) muscle weakness | <p>C. <i>What laboratory tests are used for diagnosing of this disease?</i></p> <ol style="list-style-type: none"> a) blood test b) coprology investigation c) culture of feces d) skin allergic test e) test of toxin neutralizing <p>D. <i>What treatment is need for this disease?</i></p> <ol style="list-style-type: none"> a) Specific antitoxin b) Detoxication c) Lavage of stomach d) Hyperbaric oxygenation e) Anticholinergic drugs f) Antibiotics |
|---|--|

Recommended medicines (To write prescriptions)

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Atoxylum 2. Co-trimoxazol 3. Disolum 4. Gastrolit 5. Glucosolanum 6. Kvartasol | <ol style="list-style-type: none"> 7. Laktosol 8. Oralit 9. Proserinum 10. Polyphepanum 11. Rehydron 12. Trisolum |
|--|---|

EXAMINATION OF PATIENT (TRANSACTIONS OF ANSWERS)

Patients first name, second name and patronymic, age, sex			Points
1	Complaints		
	Anamnesis of disease		
	Anamnesis epidemica		
	Anamnesis of life		
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.		
3	Cardiovascular system examination.		
4	Physical examination of the respiratory system.		
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).		
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.		
7	Basic syndrome.		
8	Intrasynndrome differential diagnosis.		
9	Preliminary clinical diagnosis.		
10	Examination plan.		
11	Assessment of laboratory findings and interpretation of instrumental findings.		
12	Determining principles of treatment, tactics of management, the necessary routine of work rest, diet.		
13	Determining prognosis and preventive measures for the given patient.		

Solving practical skills are assessed with "1", "0,5", "0".

Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

INFECTIOUS DISEASES WITH AIR-DROPLET ROUTE OF TRANSMISSION

STUDY N5.

General characteristic of group of infectious diseases with air-droplet route of transmission. Influenza, other ARVI, infectious diseases with clinical pictures of atypical pneumonia - respiratory mycoplasmosis, parrot-fever (ornithosis), respiratory chlamydiosis, legionellosis, SARS.

Meningeal syndrome in clinic of infectious disease. Differential diagnosis of serous and purulent meningitis. Brain edema. Meningococcal infectious. Emergency status in patients with infectious diseases with air- droplet route for transmission.

Date _____

As a result of the theme studying student must know the following questions:

1. Causative agents and their feature of influenza and other ARVI.
2. Causative agents and their feature of influenza A H1N1.
3. Causative agents and their feature of avian influenza A (bird's flu) H5N1.
4. Causative agents and their feature of SARS.
5. Causative agents and their feature of legionellosis, mycoplasmosis due to m. pneumonia, parrot-fever (ornithosis), respiratory chlamydiosis.
6. Sources and ways of transmission of influenza due to virus A California H1N1.
7. Sources and ways of transmission of due avian influenza A (bird's flu) H5N1, SARS.
8. Sources and ways of transmission of other ARVI.
9. Sources and ways of transmission due to legionellosis.
10. Sources and ways of transmission of chlamydiosis due to m. chlamydia, mycoplasmosis due to m. pneumonia.
11. Pathogenesis of influenza and other ARVI.
12. Clinical classification of influenza.
13. Clinical picture of classic influenza.
14. Clinical picture of avian influenza A (bird's flu) H5N1.
15. Clinical variants of legionellosis and theirs clinical pictures.
16. Clinical variants of respiratory clamydiosis and theirs clinical pictures.
17. Clinical features of influenza, parainfluenza, RS and adenovirus infections, mycoplasmosis.
18. Criteria for estimation of gravity of influenza.
19. Clinical picture of influenza in depending on gravity of current.
20. Complications of influenza, their clinic.
21. Complications of chlamydiosis due to m. chlamydia, mycoplasmosis due to m. pneumonia.
22. Complications of SARS.
23. Complications of avian influenza A (bird's flu) H5N1.
24. Complications of legionellosis.
25. Methods of laboratory diagnostics of influenza and other ARVI and atypical pneumonia.
26. Tactics of treatment of pneumonias (due to Chlamydia, Legionella, and Mycoplasma)
27. Methods of treatment of influenza and other ARVI, legionellosis and mycoplasmosis (domestic and stationary conditions).
28. Preventive maintenance of influenza and other ARVI and atypical pneumonia.
1. The agent of meningococcal infection and its properties.
2. Sources and routes of transmission of meningococcal infection, epidemiological features.
3. What's mechanism for development of meningeal syndrome?
4. What differences of meningism and meningitis?
5. Pathogenesis of meningococcal meningitis.
6. What's mechanism of brain edema provoked by meningococcal meningitis?
7. Clinical classification of meningococcal disease.
8. Clinical symptoms depending on the form meningococcal infection: nasopharyngitis, meningitis, meningococcemia.
9. Differential diagnostics of viral and bacterial meningitis.
10. Complications of meningococcal infection. Septic shock, edema brain, acute suprarenal failure.
11. Clinical symptoms of brain edema.
12. Pathogenesis and clinical picture of Waterhouse–Friderichsen syndrome (WFS).
13. Methods of laboratory diagnostics.
14. Treatment of meningococcal infections.
15. Treatment of brain edema due to meningococcal infections.
16. Treatment of WFS due to meningococcemia.
17. What medical help for patient with meningitis on pre-hospital stage?
29. Rules of an discharge of patient after meningococcal infection.
30. Recommendations for seasonal immunization against an influenza.

As a result of studying of theme student must be able to:

1. What typical changes in WBC in case of influenza and ARVI?
2. How to do sampling (techniques) of material from nasopharynx for immunofluorescent method from patient with influenza and ARVI?
3. How to do correctly to apply a respirator?
4. To collect anamnesis of illness with the estimation of epidemiology information;
5. On the basis of clinical inspection to recognize possible complications of flu, urgent cases;
6. To design a medical document in fact of establishment of previous diagnosis "flu" (urgent report in a district epidemiology department);
7. To work out on the plan of laboratory and additional inspection of patient;
8. To interpret the results of laboratory inspection;
9. To work out on the individual plan of treatment including the epidemiology information, syndromes of illness, complications, heavily of flow, allergic anamnesis, concomitant pathology; to provide the first aid on the stage up to hospitalization;

10. To work out a plan of disease and prophylactic measures in the region of infection;
11. To give recommendations in relation to the mode, diet, inspection, supervision in the period of rehabilitation.
12. How to do survey the patient and to reveal the basic symptoms and syndromes atypical pneumonias, to prove the clinical diagnosis for timely admission patient in hospital?
13. How to estimate gravity of course of atypical pneumonias, to carry out differential diagnostics of infectious diseases which clinic atypical pneumonias?
14. To make the individual plan of treatment.

1. How to do examination of meningeal symptoms (technique)
2. How to perform a lumbar puncture (techniques)?
3. To interpret analysis of cerebrospinal fluid in comparison with normal values (purulent and lymphocytic meningitis).
4. How to perform bacteriological sampling and transportation of cerebrospinal fluid from patient with meningococcal meningitis?
5. What biological materials potentially containing of *N. meningitides*?
15. Calculation of necessary dose of antibiotic by meningococcal meningitis and meningococcemia.

Influenza, other ARVI

Causative agents of influenza _____, types of a virus _____, antigens of virus of influenza _____, basic serotypes of virus influenza A _____ Etiology of adenoviral infection _____, of parainfluenza _____, RC-infection, _____, other viruses ARVI _____

Sources of infection ARVI _____, Routes of transmission _____,

seasonal prevalence _____

Phases of pathogenesis of influenza _____

6. Classification of influenza: I. _____ II. _____ III. _____ IV. _____

Clinical variants of adenovirus infection _____

The basic syndromes of influenza 1. _____ 2. _____ 3. _____ 4. _____

Clinical features:

1. Influenza _____

2. Parainfluenza _____

3. Adenovirus infection _____

4. RC-infection _____

Indications for hospitalization of influenza: 1. _____ 2. _____ 3. _____

4. _____ 5. _____ 6. _____

Criteria of unfavorable prognosis of influenza, risk groups _____

Differential diagnostics of influenza

	Influenza	Parainfluenza	Adenovirus infection	RC-infection	Rhinovirus infection
Onset of disease					
Temperature					
Symptoms of Intoxication					
Affection of respiratory organs (level)					
Other affected organs					

Complications of influenza: _____

Clinic of lungs edema, ARDS in influenza: _____

Clinic of brain edema in influenza: _____

Diagnostics of influenza: 1. _____ 2. _____ 3. _____ 4. _____
5. _____ 6. _____ 7. _____ 8. _____ 9. _____

Treatment of influenza, medication and doze.

1. Specific _____

2. Pathogenetic _____

3. Symptomatic _____

Specific therapy of ARVI _____

Vaccines for prophylaxis of influenza 1. _____ 2. _____

3. _____ 4. _____ 5. _____

Legionellosis, respiratory mycoplasmosis, respiratory chlamydiosis.

Etiology of legionellosis _____, mycoplasmosis _____ chlamydiosis _____

Source of infection in Legionellosis _____, Mycoplasmosis _____, Chlamydiosis _____

Ways of transmission _____, seasonal prevalence _____

Epidemiology features of legionellosis _____

Clinical variants and their characteristic: Legionellosis _____

Mycoplasmosis: _____

Chlamydiosis: _____

Complication of legionellosis : _____

Methods of diagnostics of legionellosis : _____

Methods of diagnostics of mycoplasmosis: _____

Specific therapy (drugs, doze): _____

Legionellosis _____

Mycoplasmosis _____

Clamydiosis _____

Meningeal syndrome, meningismus.

meningeal syndrome (definition): _____

Clinical symptoms _____

meningismus (definition): _____

The pathogenesis of meningismus: _____

The pathogenesis of meningitis _____

Etiology of lymphocytic meningitis: _____

Etiology of purulent meningitis _____

Meningococcal infection. Pathogen _____ genus _____ serogroups _____

Gram staining _____ antigens: _____ pathogenic factors: _____

Source of infection: _____ mechanism of transmission _____ routs of transmission: _____

Stages of pathogenesis: _____

Clinical classification: _____

Clinical picture of nasopharyngitis: _____

Clinical picture of meningococemia: _____

Clinical pictures of meningitis: _____

Complications and their mainly symptoms: _____

Diagnostics of: Nasopharyngitis _____

Meningitis _____

Meningococemia _____

Specific therapy		
Meningitis:	Meningococemia	Nasopharyngitis
Therapy of septic shock		Therapy of brain edema

Test tasks

№ 1

The patient of 22 years old. Was ill abrupt. Disease began from fever, rise of temperature up to 39 °C, pains in muscles and joints, a headache in frontal-temporal area and superciliary arches, pains in eyeballs. By the end of day has appeared tickle in throat. On the next day have appeared infringement nasal breathing and mucous effluent from nose, the dry often cough accompanying with pains behind sternum. On examination: face of person is puffy, hyperemic, eyes shine, sclera are injected. Mucous of the back wall throat and soft palatine is hyperemic, edematous. Pulse - 92 B/mines, satisfactory qualities. Tones of heart are muffled, rhythmical. In lung - rigid breath. Abdomen is soft, painless at palpation. The liver and a spleen are not palpated.

A. What diagnosis is most probable?:

- Meningococcal infections.
- Epidemic typhus.
- Influenza.
- Leptospirosis.
- Virus hepatitis.

B. What is clinical symptoms are typical for this disease?:

- Headache in frontal-temporal area and eyeballs.
- Disseminated headaches.
- Tickle in throat.
- Hoarse dry cough.
- Pain in lumbar area.

C. What are methods of laboratory diagnostics we may apply at this disease?:

- Bacteriological.
- Microscopy in dark field.
- Virological.
- Immunofluorescent.
- RNDA.

D. What drugs we may apply for specific treatments of disease?:

- Tamiflu.
- Remantadin.
- Penicillin.
- Cotrimoxazol.
- Tusuprex.

№ 2

The patient of 23 years old. Disease began gradually from temperature 37,6 °C, cold, dry "barking" cough have appeared, then there was hoarseness of voices, which change aphonic. On examination: general condition is satisfactory. There was difficult nasal breath, moderate hyperemia of mucous pharynx and the soft palate. Pulse - 80 B/mines, satisfactory qualities. In lung by auscultation from both parties - rigid breath.

A. *What diagnosis is most probable?:*

- a) Influenza.
- b) Adenovirus infection.
- c) Rhinovirus infection.
- d) Parainfluenza.
- e) Respiratory-syncytial infection.

B. *What symptoms are most typical for disease?:*

- a) Muscular pain and pain in joints.
- b) Cold.
- c) Rough "barking" cough.
- d) Hoarseness of voice.
- e) The temperature is more often subfebril.

C. *What methods of laboratory diagnostics we may apply at this disease?:*

- a) Immunofluorescent.
- b) The clinical analysis of blood (CBA).
- c) Bacteriological method.
- d) RNDA
- e) Biological test

D. *What drugs we may apply for specific treatment of this disease?:*

- a) Remantadin.
- b) Arbidol-lens.
- c) Euphyllin.
- d) Codterpin.
- e) Virazol.

№ 3

A patient delivered to the doctor on the 3rd day of illness. Felt ill suddenly. Illness has begun with a fever up to 39⁰C, chill, headache in the forehead, superciliary arcs, dull ache in a body. On a 2nd day a dry cough appeared with irritation after breastbone, heavy breathing by nose. During examination: temperature 38,5⁰C, languid answers on questions, hyperemia of face and upper half of trunk, injection of sclera vessels, hyperemia grittiness and dryness of mucous membrane of pharynx, blood pressure 100/60, pulse 90 in 1 min., breath 20 in 1 min.

- 1. *Formulate a preliminary diagnosis.*
- 2. *Plan of examination*
- 3. *Treatment.*

№ 4

Patient, 28 years felt ill suddenly. Illness was begun with a chill, pain in the back, muscles, headache in a forehead, eyes. A temperature rose to 39⁰C. A dry, black-breaking cough appeared on the second day of illness, heavy breathing by nose. There are a temperature of 39, 2⁰C during examination, a person is bloodshot, edematous, injection of sclera vessels, expressive hyperemia of pharynx. Heart tones deaf, pulse 100, in lungs vesicular breathing

- 1. *Formulate a preliminary diagnosis.*
- 2. *Plan of examination*
- 3. *Treatment.*

№ 5

Patient felt ill suddenly with increase of temperature up to 38,4⁰C, head ache in the area of forehead, pain in eyeballs, dull ache whole-body, heavy breathing by nose, dry cough.

- 1. *Formulate a preliminary diagnosis.*
- 2. *Plan of examination*
- 3. *Treatment.*

№ 6

A 35 year old patient felt ill in the middle of February. Temperature of 39,5⁰C, headache in a frontal area, dry cough, irritation after a breastbone. There are hyperemia of face, injection of sclera and conjunctiva vessels, hyperemia and grittiness of pharynx mucous membrane.

- 1. *Formulate a preliminary diagnosis.*
- 2. *Plan of examination*
- 3. *Treatment.*

№ 7

A boy 5 years fell ill gradually. A disease begun with a weakness, indisposition, increase of temperature to 37,8 C°, barking cough, stuffiness in nose. During the examination: temperature was 38,5C°, insignificant hyperemia of face, mild hyperemia of handles, soft palate, back wall of gullet, above lights – vesicular breathing with a hard tint. Breathing rate (BR) 20 times per minute

- 1. *Formulate a preliminary diagnosis.*
- 2. *Plan of examination*
- 3. *Treatment.*

№ 8

Patient of P., 28 years fell ill sharply. Illness began from a stuffiness in nose and increasing of body temperature to 37,8C°. On the next day a moderate pharyngalgia appeared during swallowing, rubbing in an area of back wall of gullet, colic and feeling of sand in a right eye. Objectively: there are hyperplasic follicles on the back wall of gullet, tonsils are moderately swollen up, hyperemic, soft elastic, painless, not soldered between itself and surrounding fabrics lymphatic knots are palpated, eye crack of right eye, ages, are swollen up, hyperemic and edematous conjunctiva

- 1. *Formulate a preliminary diagnosis.*
- 2. *Plan of examination*
- 3. *Treatment.*

№ 9

Patient of N. 42 years have complains on chills, increasing of body temperature to 40⁰C, cough with sputum admixture mucous and pus, pain in chest to the right by cough, dyspnoe and general weakness. He has got general weakness, chills, pain in joints 3 days ago (it was 10th august. During last years patient has got alcoholism.

Anamnesis epidemica - He take a bath in pond 7 days before start of disease. Objectively: there are paleness of skin and acrocyanosis. There is sound contraction by percussion in lower part of lung below 7th costal rib, there is not respiration by auscultation. Breathing rate (BR) 30 times per minute. Heart tones deaf, pulse 120/min, BP 90/60 Hg. There is enlargement of liver by palpation of abdomen. He was admitted in hospital. The result of lab investigations: Hypoalbuminemia- – 20g/l, hyperbilirubemia, Alat 2,2 mmol/g.l., there is hematuria, proteiuria. WBC: L-15 x 10⁹ /l, shift to the left , lymphopenia -8%, RSE - 80 mm/h. By X-Rh on the chest - focus of infiltration to the right in lower part of lung. Vomiting, diarrhea, hallucinations and loss of consciousness to appear 3 hours after admission. There is no effect after antibiotic of beta- lactam group and general condition was worsening.

1. *Formulate a preliminary diagnosis.*

2. *Plan of examination*

3. *Treatment.*

№ 10

The patient of 28 years old. The disease began suddenly from rise of temperature to 39⁰C, strong disseminated headache, vomiting without nausea. Three days prior the disease patient reports symptoms of "mild cold" and cough.

On examination: face is hyperemic, an injection of sclera vessels, on lips and wings of nose there is herpetic rash. Pulse - 96¹/min. Tones of heart are muffled, rhythmical. In lung - rigid breath, individual dry rattles. Kerning and Brudsky symptoms are positive, there is hyperesthesia, rough rigid neck.

A. *What diagnosis is most probable?:*

- a) Influenza.
- b) Viral meningitis.
- c) Meningitis due to *N. meningitidis*.
- d) Subarachnoid hemorrhages.
- e) Respiratory-syncytial infection.

B. *What symptoms are most typical for this disease?:*

- a) Temperature 39-40⁰C,
- b) Disseminate headache.
- c) Vomiting.
- d) Herpetic rash.
- e) Positive meningeal symptoms

C. *What methods of laboratory diagnostics we may apply at this disease?:*

- a) The clinical analysis of blood
- b) Bacteriological research of cerebrospinal fluid.
- c) Bacteriological research of mucous from nasopharynx.
- d) Cerebrospinal fluid analysis.
- e) ELISA.

D. *What is the specific drug of this disease?:*

- a) Fluconazol.
- b) Acyclovir.
- c) Erythromycin.
- d) Teracyclin.
- e) Penicillin.

№ 11

The patient of 43 years old. Disease began suddenly from rise in temperature up to 39⁰C, general weakness, headache, pain in muscles of back and extremities. In 6 hours after beginning of disease on shins and thighs has appeared hemorrhagic rash.

On examination: general condition is severe. There is hemorrhages in sclera's. On the skin of shins, hips, buttocks, trunks - hemorrhagic rash like asterisks and irregular-shaped. Pulse - 94 B/min., satisfactory filling, and pressure. Tones of heart are muffled, there is tachycardia. BP - 100/60 mm. Hg. Meningeal symptoms are negative.

A. *What diagnosis is most probable?:*

- a) Influenza.
- b) Meningococemia.
- c) Measles.
- d) Scarlet fever.
- e) Hemorrhagic fever.

B. *What symptoms are most typical for this disease?:*

- a) The sudden beginning.
- b) Hemorrhagic rash like asterisks forms with necrosis in center.
- c) Liver and spleen enlargement.

- d) Hemorrhages in sclera's and an iris of eyes.
- e) Filatov - Coplik spots.

C. *What methods of laboratory diagnostics apply at this disease?:*

- a) The clinical analysis of blood.
- b) The clinical analysis of urine.
- c) The bacteriological analysis of blood.
- d) Simple bacterioscopia of slime from a nasopharynx.
- e) ELISA.

№ 12

A 15 year old boy with severe headache and high fever was admitted at intensive care unit. He felt nausea, terrible chills, vomiting, muscle and joint pains for 12 hours disorientation and a hemorrhagic rash developed for 6 hours.

On examination: Temperature – 39,4⁰C. General condition is severe, lethargy alternating with restlessness, generalized purpuric rash, petechiae and purpura on the hand, stiff neck and clear lungs. Chest film negative with no evidence of pulmonary infiltrates. Ps – 125 b/m, BP - 90/55 mm Hg. Laboratory exam: Hb – 135 g/l, Ht 42%, RBC – 4.5×10¹² /l, WBC – 22×10⁹ /l, PMN's - 75%, platelets - 130×10⁶ /l, ESR – 26 mm/h, prothrombin time 20 s (control - 11 s), fibrinogen 2,8 g/l, fibrinogen degradation products – 1,2 g/l (control – <0,8 g/l). Creatinine – 200 mmol/l, urea - 20 mmol/l. Lumbar puncture revealed clear fluid with, protein – 0,4 g/l, and sugar 2,3 mmol/l, cells – 125×10⁶/l, neutrofiles – 68%, Gram staining showed few gram-negative diplococci.

1. *Make a preliminary diagnosis.*

2. *Plan of examination*

3. *Treatment.*

Recommended medicines (To write prescriptions).

1. Amantadine
2. Ambroxol
3. Amixin
4. Amoxycillin clavulanat Ampicillin
5. Antinfluenza immunoglobulins
6. Ascorutin
7. Azitromycin(Sumamed)
8. Benzilpenicillin
9. Bromhexin
10. Cefaclor
11. Claritromycin (Clacid, Fromilid)
12. Erythromycin
13. Euphyllin (amp.)
14. Goldrex
15. Interferon
16. Laevomycetin(Chloramphenicol)
17. Laxiz
18. Mannitol
19. Mucaltin
20. Neohaemodez
21. Nimesulid (Naiz, Nimegesic, Nimulid)
- 22. Ozeltamivir(Tamiflu)**
23. Prednisolon (amp.)
24. Reopolyglucin
25. Reosorbilact
26. Ribavirin (Virazol, Ribavin)
27. Roxitromycin (Rulid)
- 28. Zanamivir (Relenza)**
1. Benzilpenicillin
2. Ceftriaxon
3. Cefuroxim
4. Dexamethasone
5. Dobutamine
6. Dopamine
7. Fraxyparin
8. Fresh frozen plasma
9. Heparin
10. Hydrocortizon
11. Nimesulid (Naiz, Nimegesic, Nimulid)
12. Oxybutirat sodium
13. Paracetamol
14. Reamberin
29. Rifampin (Rifadin, Rimactane)

EXAMINATION OF PATIENT (TRANSACTIONS OF ANSWERS)

Patients first name, second name and patronymic, age, sex			Points
1	Complaints		
	Anamnesis of disease		
	Anamnesis epidemica		
	Anamnesis of life		
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.		
3	Cardiovascular system examination.		
4	Physical examination of the respiratory system.		
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).		
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.		
7	Basic syndrome.		
8	Intrasymptom differential diagnosis.		
9	Preliminary clinical diagnosis.		
10	Examination plan.		
11	Assessment of laboratory findings and interpretation of instrumental findings.		
12	Determining principles of treatment, tactics of management, the necessary routine of work and rest, diet.		
13	Determining prognosis and preventive measures for the given patient.		

Solving practical skills are assessed with "1", "0,5", "0".

Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

STUDY N6.

Children's diseases in adults. Diphtheria. Acute tonsillitis (Quinsy). Differential diagnosis of angina syndrome (Acute tonsillitis) Infectious mononucleosis. Herpetic infection (virus of simple herpes (HSV), Varicella-zoster virus (VZV)), EBV and CMV- infection

As a result of the theme studying student must know the following questions:

1. Causative agent of diphtheria and its properties.
2. Epidemiology of diphtheria (sources, ways of transmission, seasonal prevalence, risk groups).
3. Pathogenesis of diphtheria.
4. A mechanism of myocardium affection by diphtheritic toxin.
5. Explain clinical differences between fibrinous and croupous inflammation in case of diphtheria.
6. Clinical classification of diphtheria.
7. Clinical features of diphtheria in depending on form.
8. Criteria of an estimation of gravity by diphtheria.
9. Early and late complications of diphtheria, their clinic (myocarditis, polyneuritis).
10. Differential diagnostics of diphtheria with acute tonsillitis and mononucleosis.
11. Methods of laboratory diagnostics of diphtheria.
12. Methods of treatment of diphtheria.
13. Rules of applying of serum and doses.
14. Treatment of complications of diphtheria (croup, septic shock, myocarditis, polyneuritis).
15. Rules of discharge and dispensary supervision for convalescent after diphtheria.
16. Preventive measures of diphtheria.
17. Causative agents of acute tonsillitis and their property.
18. Pathogenesis of acute tonsillitis.
19. Sources and ways of transmission of acute tonsillitis.
20. Clinical forms of acute tonsillitis and their symptoms depending on the form (catarrhal, follicular, lacunar, ulcerative-necrotic)
21. Criteria for diagnosis of acute tonsillitis.
22. Early and late complications of acute tonsillitis.
23. Treatment of acute tonsillitis.
24. Rules of discharge and dispensary supervision of convalescent after acute tonsillitis.
25. Causative agent herpetic infections and their properties (8 types of viruses).
26. Epidemiology of herpetic infections (sources, ways of transfer, contingents of risk depending on etiology).
27. Pathogenesis herpetic infections (HSV, CMV, EBV).
28. Classification herpetic infections.
29. The clinical variants of defeat CNS caused by viruses of herpes's.
30. Clinical forms of the HSV-infection and their symptoms.
31. Clinical forms of the VZV- infection and their symptoms.
32. Clinical forms of the CMV- infection and their symptoms.
33. Clinical forms of the EBV- infection N and their symptoms.
34. Differential diagnosis of herpetic infections.
35. Laboratory diagnostics herpetic infections depending on etiology and stages of disease (acute, relapse, latent).
36. Treatment of herpetic infections depending on etiology and clinical forms of disease.
37. Etiology factors of infectious mononucleosis and their properties
38. Source and ways of transmission of infectious mononucleosis.
39. Pathogenesis of infectious mononucleosis.
40. Clinical picture of infectious mononucleosis depending on clinical form.
41. Criteria for diagnosis of infectious mononucleosis.
42. Differential diagnosis of infectious mononucleosis (diseases of blood, HIV, ARVI, acute tonsillitis).
43. Methods of laboratory diagnostics by infectious mononucleosis.
44. Treatment of infectious mononucleosis.
45. Complications which is possible by infectious mononucleosis.
46. Rules of discharge and dispensary supervision of convalescent after infectious mononucleosis

As a result of studying of theme student must be able to:

1. To conduct examination of the patient.
2. To reveal characteristic symptoms for diseases.
3. To characterize changes in throat by diphtheria (the located and widespread forms).
4. To prove preliminary diagnosis and to assess gravity of illness.
5. To appoint laboratory researches and to give their estimation.
6. To treat picture of CBA by infectious mononucleosis e.
7. To carry out bacterioscopy smear from nasopharynx by suspicion on diphtheria.
8. To carry out taking of smear for bacteriological research by diphtheria.
9. To reveal by cytoscopy characteristic cytopathogenetic effect by CMV- infection.
10. To carry out differential diagnosis.
11. To formulate final diagnosis of disease and his complications.
12. To appoint treatment to the patient.
13. To define doze of serum for treatment of diphtheria depending on clinical form and gravity of illness.
14. To be able to apply diphtheria antitoxin.
15. . To carry out medical actions by diphtheritic croup.

16. To carry out medical actions at an infectious - toxic shock at patients with a diphtheria.

17. To carry out medical actions at sharp cardiovascular insufficiency at patients with a diphtheria.

Diphtheria. Etiology _____, Biotypes _____, Factors of pathogenicity _____, Sources of infection _____, ways of transmission _____, seasonal prevalence _____, Phases of pathogenesis _____

The mechanism of local changes development: _____

What internal organs are damaged: _____

Classification of diphtheria: _____

Describe *locus morbi* _____

Clinical picture of local form: _____

Clinical picture of the widespread form: _____

Criteria of severity: _____

Clinical picture of diphtheria of nose: _____

Clinical picture of diphtheria of throat: _____

Clinical picture of hypertoxic form of diphtheria: _____

Complications: _____

The reason of development of early and late complications: _____

Clinic of bulbar paralysis in diphtheria: _____

Clinic of croup by stages: _____

Complications of cardiovascular system (clinic-instrumental data): _____

Complications from CNS depending on variant (clinic): _____

Differential diagnosis

	Lacunar angina	Plaut-Vincent	Mononucleosis	Diphtheria	Scarlet fever
Temperature, intoxication					
Local changes					
Lymphnouds					
Complications					
Skin					
Liver, spleen					
CBA					

Diagnostic methods: _____

Therapy (preparation, doze)

1. Etiotropic: _____

2. Specific: _____

3. Pathogenetic: _____

4. Symptomatic: _____

Tactic of diphtheritic myocarditis treatment: _____

Tactic of diphtheritic polyneuritis treatment: _____

Tactic of diphtheritic croup treatment: _____

Terms and rules of discharge of patient, in depending on clinical form and degree of severity: _____

Dispensary supervision of convalescents: _____

Preventive measures: _____

Angina. Etiology _____, Source of infection _____, ways of transmission _____, seasonal prevalence _____, Classification of angina: _____

Describe *locus morbi* at: A) Follicular angina: _____

B) Lacunar angina: _____

C) Necrotic angina: _____

Complications: A) Early _____

B) Late _____

Methods of diagnostics: _____

Therapy (preparation, doze)

1. Etiotropic: _____

2. Pathogenetic: _____

3. Symptomatic: _____

Measles. Etiology _____, Epidemiology _____, Source of infection _____, Ways of transmission _____, Duuration of immunity in newborns _____, Pathogenesis _____

Clinical picture in initiate period _____

Clinical picture in climax period _____

Describe enantema: _____

Describe exanthema: _____

Basic complications: _____

Methods of specific diagnostic _____

Rubella. Etiology _____, Epidemiology _____, Source of infection _____, Ways of transmission _____, Pathogenesis _____

Clinical picture in initiate period _____

Clinical picture in climax period _____

Describe exanthema: _____

Basic complications: _____

Methods of specific diagnostic _____

Mumps. Etiology _____, Epidemiology _____, Source of infection _____, Ways of transmission _____, Pathogenesis _____

Clinical picture in initiate period _____

Clinical picture in climax period _____

Describe exanthema: _____

Basic complications: _____

Methods of specific diagnostic _____

Etiologic classification of herpetic infections (HVI)

α viruses _____ β viruses _____ γ viruses _____

Source of infection _____, routes of transmission 1. _____ 2. _____ 3. _____ 4. _____

seasonal prevalence _____, contingent of risk _____

Clinical classification HVI on mechanism of infected and prevalence 1 _____, 2 _____

1. _____

2. _____

3. _____

Clinical variants HSV infection: 1 _____ 2 _____ 3 _____ 4 _____ 5 _____

Clinical variants HZV of infection: 1 _____ 2 _____ 3 _____ 4 _____ 5 _____

Clinical variants CMV of infection: 1 _____ 2 _____ 3 _____

Clinical forms of EBV infection: 1 _____ 2 _____ 3 _____ 4 _____

Affection of CNS. _____

Etiology: 1. _____ 2. _____ 3. _____ 4. _____

Clinical variants: 1 _____ 2 _____ 3 _____ 4 _____

5 _____ 6 _____ 7 _____

8. Describe changes are characteristic for the acute period (the located form) HSV-infections: _____

For meningoencephalitis and encephalitis. _____

Disseminated visceral form HSV infection. _____

Diagnostics herpetic infections: acute, relapse, latent. _____

HSV _____

HZV _____

EBV _____

CMV _____

Etiotropic therapy located and generalized forms, preparation, doze, duration of course:

HZV-infections; chicken pox _____, surrounding deprive _____

meningoencephalitis _____; CMV-infections _____

_____; HSV-infections: defeat of skin and mucous meningoencephalitis _____

_____, generalized forms _____ Treatment of acyclovir -

resistant forms HSV of infection: _____

Imunomodulation (medicine, doze) _____

Specific antibodies (medicine, doze) _____

Preventive measures of relapses herpetic infections:

Etiology of infectious mononucleosis _____

Source of infectious mononucleosis _____, ways of transmission _____, seasonal prevalence _____, age morbidity _____.

Classification of infectious mononucleosis: _____

Clinical picture of typical form of infectious mononucleosis: _____

Complications of infectious mononucleosis: _____

Diagnostics of infectious mononucleosis: 1. _____ 2. _____ 3. _____ 4. _____

Therapy of infectious mononucleosis (preparation, doze):

1. Specific: _____

2. Pathogenetic: _____ 3. Symptomatic: _____

Test tasks

№ 1

The patient of 29 years old fell ill with fever up to 38 °C, weakness, headache, insignificant pain in throat at swallowing. He was admission in infectious hospital with diagnosis "quinsy".

On examination: - general condition is severe. Shows complaints on complicated breath, pain by swallowing, choke, discharge of ichor from nose. It is marked stagnant moderate hyperemic of pharynx, tonsil's are enlargement, on their surfaces - dense, with like pearl color membranes which spread outside of tonsil's and pass to soft palate. Regional lymph nodes are enlargement, moderately painful.

A. What diagnosis is most probable?:

- a) The widespread form of diphtheria of pharynx.
- b) Acute leukemia.
- c) Mononucleosis.
- d) Fungal defeat of tonsil's.
- e) The combined form of diphtheria of nose and pharynx.

B. What symptoms are most typical for this disease?:

- a) Bright hyperemia mucous of pharynx.
- b) Non bright, stagnant hyperemia mucous of pharynx.
- c) Friable coating on tonsillas.
- d) Dense difficult removal membranes coating.
- e) Enlargement, moderately painful regional lymphonoids.

C. What methods of laboratory diagnostics we can use by confirmatory this disease?:

- a) Bacterioscopy.
- b) Bacteriological test - divide culture of agent.
- c) Virological test.
- d) Biological test.
- e) Serological test.

D. What medication we can use by this disease?:

- a) Loperamid.
- b) Diphtheria antitoxin.
- c) Cephalosporin's.
- d) Corticosteroid.
- e) Donor - globulin.

№ 2

The patient of 20 years. Disease began acute from fever, rise of temperature up to 39 °C, headache, pain in throat, amplifying have appeared by swallowing.

On examination: - general condition is moderate. Mucous of pharynx brightly hyperemic. Tonsil's edematous, are hypertrophied, protuberate in gleam of pharynx (II degree). On surface on course of lacunas - friable, easily removed coating of ochroleucous color. By palpated are found enlarged, painful regional lymphonoids. Tones of heart are muffled. Pulse - 98 B/min., rhythmical, satisfactory qualities.

A. What is the diagnosis is most probable?:

- a) Diphtheria, form of coating like small island.
- b) Herpetic acute tonsillitis.
- c) Lacunar acute tonsillitis.
- d) Adenovirus infection.
- e) Trench mouth (acute tonsillitis of Wensan).

B. What symptoms are characteristic for disease?:

- a) Fever, rise in temperature till 38-39 °C.
- b) Pains in throat by swallowing.
- c) Unilateral ulcerous - necrotic center.
- d) Pains in joints.
- e) Friable purulent coating.

C. What laboratory methods we can use for confirmatory this disease?:

- a) The clinical analysis of blood.
- b) The clinical analysis of urine.
- c) Isolation of culture of agent.
- d) Bacterioscopy.
- e) Serological.

D. What drug we can use for treatment of this disease?:

- a) Benzyl-penicillin.
- b) Oxacyllin.
- c) Spirituous solution of chlorophyllipt.
- d) Furacyllin.
- e) Furazolidon.

№ 3

The patient of 29 years old. Disease began from rise in temperature up to 38 °C, weakness, headache, insignificant pain in throat at swallowing. He was admission in infectious hospital with diagnosis "quinsy".

On examination: - general condition is severe. Shows complaints on complicated breath, pain by swallowing, choke, discharge of ichor from nose. It is marked stagnant moderate hyperemic of pharynx, tonsil's are enlargement, on their surfaces - dense, with like pearl color membranes which spread outside of tonsil's and pass to soft palate. Regional lymph nodes are enlargement, moderately painful.

A. What diagnosis is most probable?:

- a) The widespread form of diphtheria of pharynx.
- b) Acute leukemia.
- c) Mononucleosis.
- d) Fungal defeat of tonsil's.
- e) The combined form of diphtheria of nose and pharynx.

B. What symptoms are most typical for this disease?:

- a) Bright hyperemia mucous of pharynx.
- b) Non bright, stagnant hyperemia mucous of pharynx.
- c) Friable coating on tonsillas.
- d) Dense difficult removal membranes coating.
- e) Enlargement, moderately painful regional lymphonoids.

C. What methods of laboratory diagnostics we can use by confirmatory this disease?:

- a) Bacterioscopy.
- b) Bacteriological test - divide culture of agent.
- c) Virological test.
- d) Biological test.
- e) Serological test.

D. What medication we can use by this disease?:

- a) Loperamid.
- b) Diphtheria antitoxin.
- c) Cephalosporin's.
- d) Corticosteroid.
- e) Donor - globulin.

№ 4

The patient of 20 years. Disease began acute from fever, rise of temperature up to 39 °C, headache, pain in throat, amplifying have appeared by swallowing.

On examination: - general condition is moderate. Mucous of pharynx brightly hyperemic. Tonsil's edematous, are hypertrophied, protuberate in gleam of pharynx (II a degree). On surface on course of lacunas - friable, easily removed coating of ochroleucous color. By palpated are found enlarged, painful regional lymphnodes. Tones of heart are muffled. Pulse - 98 B/min., rhythmical, satisfactory qualities.

A. What is the diagnosis is most probable?:

- a) Diphtheria, form of coating like small island.
- b) Herpetic acute tonsillitis.
- c) Lacunar acute tonsillitis.
- d) Adenovirus infection.
- e) Trench mouth (acute tonsillitis of Wensan).

B. What symptoms are characteristic for disease?:

- a) Fever, rise in temperature till 38-39 °C.
- b) Pains in throat by swallowing.
- c) Unilateral ulcerous - necrotic center.
- d) Pains in joints.
- e) Friable purulent coating.

C. What laboratory methods we can use for confirmatory this disease?:

- a) The clinical analysis of blood (CBA).
- b) The clinical analysis of urine.
- c) Isolation of culture of agent.
- d) Bacterioscopy.
- e) Serological.

D. What drug we can use for treatment of this disease?:

- a) Benzyl-penicillin.
- b) Oxacyllin.
- c) Spirituous solution of chlorophyllipt.
- d) Furacyllin.
- e) Furazolidon.

№ 5

The patient of 19 years old. Onset of the disease was abrupt with fever up to 39 °C, headache, pain in throat by swallowing. In subsequent were kept temperature on 38-39 °C, pain in throat at swallowing. For 2-nd day has appeared macular-papular rash which has disappeared day later.

On examination: for 5-th day of illness – moderate condition. Mucous pharynx is hyperemic. Tonsil's are enlarged in sizes, by surfaces - purulent membranes. There are by palpated enlarged ante-and poster cervical, supraclavicular, auxiliary, inguinal lymphnodes, by palpation they are tens, elastic, moderately painful, not binding among themselves and environmental tissues. Abdomen is soft, painless by palpation. The liver is palpated on 2 sm below costal rib. The spleen is palpated on 1 sm below costal rib.

A. What is the diagnosis is most probable?:

- a) Lacunar acute tonsillitis.
- b) Measles.
- c) Adenovirus infection.
- d) Infectious mononucleosis.
- e) Lymphogranulomatosis (Hodgkin's disease).

B. What symptoms are most typical for this disease?:

- a) Temperature 38-40 °C.
- b) Pain in throat by swallowing.
- c) Enlargement all groups of lymphonouds.
- d) Enlargement liver and spleen.
- e) Diarrhea.

C. What are laboratory methods may apply by this disease?:

- a) The clinical analysis of blood (CBA).
- b) ELISA test.
- c) PCR.
- d) Virological test.
- e) Immune fluorescent test.

D. What drug apply G. to treatment of this disease?:

- a) Acyclovir.
- b) Penicillin.
- c) Chloramphenicol.
- d) Prenisolon.
- e) Specific immunoglobulin G EBV.

№ 6

The patient of 23 years old was admitted for 5-th day of disease. Disease began from harbingers as fast fatigue, headache, an itch of skin of chest at the left. There was body temperature up to 38 °C, has raised, on skin of chest at the left have appeared papules which have quickly changed in vesicles. Occurrence of rash was accompanied by pain in place of rash on course of intercostal nerves.

On examination: -general condition was moderate. On the skin of trunk, on lateral surface at the left – vesicles with serous contents. Acute moderate pain on course of intercostal nerves is kept.

A. What diagnosis is most probable?:

- a) Chicken pox.
- b) Herpes zoster.
- c) CMV infection.
- d) Eczema.
- e) The Siberian ulcer.

B. What symptoms are most typical for this disease?:

- a) Headache.
- b) Rise in temperature.
- c) Pain in place of eruption.
- d) Vesicular rash.
- e) Formation of bull.

C. What laboratory methods we may apply by confirmatory of this disease?:

- a) Virological test.
- b) Bacteriological test.
- c) Detection of antibodies Ig M.
- d) PCR.
- e) Detection of antibodies Ig G.

D. What drugs we may apply for treatment of this disease?:

- a) Ribavirin.
- b) Acyclovir.
- c) Valtrex.
- d) Ramantadin.
- e) Interferon of leucocytes.

Recommended medicines (To write prescriptions)

1. Diphtheria antitoxin.
2. Norfloxacin.
4. Azitromycin (Azitrox, Sumamed).
5. Claritromycin (Clacid, Clabax).
6. Roxytromycin (Rulid).
7. Spyramycin (Rovamycin).
8. Erythromycin.
9. Amoxicillin.
10. Amoxicillin/clavulanat (Augmentin, Medoclav, Amoxyclav).
11. Ampicillin / sulbactam (Ampisid, Unasid, Sulacyllin, Sultacid).
12. Clindamycin (Dalacin, Climicid).
13. Lincomycin.
14. Cefadroxyl.
15. Cephuroxym (Ketoceph).
16. Ceftriaxon.
17. Dexason.
18. Neohemodes.
19. Polyglucin.
20. Sorbilact.
21. Reosorbilact.
22. Spirituous solution of chlorophyllipt (for rinsings).
23. Solution of furacillin, ectericid.
24. Cycloferon.
25. Amixin.
26. Acyclovir (Zovirax, Geviran, Herpevir, Medovir).
27. Foscarnet (Foscavir).
28. Gancyclovir (Cimiven).
29. Valacyclovir (Valtrex).
30. Famcyclovir (Famivir).
31. Okoferon.
32. Indoxuridin (drops eye).
33. Florenal.
34. Mildronat.
35. Proserin.
36. Neurovitan, Neurovitan.
37. Espalipon, Berlition.
38. Neoton.
39. Prednisolon.
40. Suprastin.
41. Antiherpetic (HSV, VZV, EBV, CMV) human antibody.

EXAMINATION OF PATIENT (TRANSACTIONS OF ANSWERS)

Patients first name, second name and patronymic, age, sex			Points
1	Complaints		
	Anamnesis of disease		
	Anamnesis epidemica		
	Anamnesis of life		
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.		
3	Cardiovascular system examination.		
4	Physical examination of the respiratory system.		
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).		
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.		
7	Basic syndrome.		
8	Intrasymptom differential diagnosis.		
9	Preliminary clinical diagnosis.		
10	Examination plan.		
11	Assessment of laboratory findings and interpretation of instrumental findings.		
12	Determining principles of treatment, tactics of management, the necessary routine of work and rest, diet.		
13	Determining prognosis and preventive measures for the given patient.		

Solving practical skills are assessed with "1", "0,5", "0".

Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

INFECTIOUS DISEASES WITH TRANSMISSIBLE ROUT OF TRANSMISSION

STADY N 7.

General characteristic of infectious diseases with transmissible mechanism of invasion. Malaria. Leishmaniasis. Tick-borne encephalitis. Lyme's disease. General characteristic of rickettsiosis. Epidemic louse-borne typhus. Brill's-Cinser disease. Q-fever. Marseilles fever.

Date _____

As a result of the theme study student must know the followings questions:

1. Etiology of malaria (species of plasmodia, cycles of malarial plasmodia development), spreading of plasmodia in different regions.
2. Epidemiology of malaria (sources and mechanisms of invasion).
3. Pathogenesis of malaria. Peculiarities of pathogenesis of tropical malaria.
4. Malaria clinical manifestations in typical course. Clinical symptoms of malarial paroxysm.
5. Clinical peculiarities of malaria depending from type of plasmodia (Pl. Vivax & Ovale, Pl. Malariae, Pl. falciparum). Definition of initial fever, peculiarities of temperature. Duration of apyrexia period depending from species of plasmodia.
6. Pathogenesis, term of appearance and clinical signs of malarial coma and other complications.
7. Laboratory diagnostics of malaria (picture of clinical blood analysis, rules of taking smear and tick drop, staining technique, parasitoscropy: differences between plasmodia Vivax, Malariae, Falciparum, Ovale).
8. Antimalarial drugs and schemes of treatment. Treatment of delagil-resistant forms of malaria.
9. Treatment of malarial coma.
10. Rules of discharge and out-patient supervision of convalescents.
11. Foundations of individual prophylaxis.
12. Prognosis of malaria depending from type of plasmodia.
13. Etiology, factors pathogenicity of the pathogen of leishmaniasis (dermal, visceral, of the New World).
14. Epidemiology of dermal and visceral leishmaniasis.
15. Pathogenesis.
16. Clinical and epidemiological peculiarities of dermal, visceral, of the New World leishmaniasis.
17. Pathogenesis, term of arising and clinical manifestations of the complications of visceral leishmaniasis.
18. Laboratory diagnosis of leishmaniasis.
19. Principles of treatment of the disease and urgent conditions.
20. Prognosis of visceral and dermal leishmaniasis.
21. Rules of letting go from the hospital for the convalescences.
22. Prophylaxis of visceral and dermal leishmaniasis.
23. Sources, mechanisms of invasion of tick-borne encephalitis and Lyme's disease.
24. Pathogenesis of tick-borne encephalitis and Lyme's disease.
25. Tick-borne encephalitis and Lyme's disease clinical classification.
26. Clinical manifestations of tick-borne encephalitis and Lyme's disease depending from forms, stages and severity of disease.
27. Encephalitic and meningeal syndrome.
28. Procedure of lumbar punctures.
29. Statement and results interpretation of investigation of eye grounds, electroencephalography. Diagnostic significance of CAT and MR-imaging.
30. Complications of tick-borne encephalitis and Lyme's disease. Urgent states.
31. Laboratory diagnostics of the disease.
32. Differences between clinical pictures tick-borne encephalitis and Lyme's disease.
33. Principles of treatment.
34. Rules of the prophylactic medical examination of convalescents.
35. Common characteristic and classification of rickettsioses.
36. Pathogen of louse-borne typhus.
37. Hosts and routs of transmission of louse-borne typhus.
38. Pathogenesis of louse-borne typhus..
39. Clinical symptoms of periods of louse-borne typhus.
40. Definition of Brill – Cinser's disease.
41. Differences between clinical pictures of Brill-Cinser's disease and louse-borne typhus.
42. Complications of louse-borne typhus and Brill-Cinser's disease.
43. Differential diagnostics of louse-borne typhus.
44. Laboratory diagnostics of the disease.
45. Treatment of louse-borne typhus and its complications.
46. Rules of discharge and out-patient supervision of convalescents.
47. Preventive measures.

As a result of studying of theme student must be able to:

1. To follow the basic rules of work at the examination of infectious patient.
2. To obtain the case history with epidemiology information.
3. Examine the patient objectively and system-based and detect basic malaria symptoms and syndromes; to confirm a clinical diagnosis for timely patient referral to in-patient treatment
4. To conduct differential diagnostics of malaria.
5. On the basis of clinical examination to diagnose in time development of possible complications.
6. To draw up medical paper in fact of making out the provisional diagnosis (urgent notification in a district epidemiology branch).
7. To work out a plan of patient's laboratory and additional examination.
8. To estimate the results of laboratory examination.
9. To analyze the results of specific methods of diagnostics depending on the probed material and terms of disease.
10. To work out an individual plan of treatment taking into account epidemiologic information, period of disease, presence of complications, severity of the patient's state, allergic history, concomitant

pathology; relief urgent action on the pre-admission stage.

11. To work out a plan of antiepidemic and prophylactic measures in the infectious nodes.
12. To give recommendations in regard to the regimen, diet, examinations and to the medical observation in the period of convalescence.
13. Keep the main rules of the work beside beds of patients with visceral and dermal leishmaniasis.
14. Ask the case history with appraisal of epidemiological data.
15. Know how to examine patients and reveal main symptoms and syndromes of leishmaniasis, motivate the clinical diagnosis for well-timed direction the patient to the hospital.
16. Carry out the differential diagnosis of visceral and dermal leishmaniasis.
17. On base of the clinical examination to recognize the possible complications and urgent conditions by visceral leishmaniasis in good time.
18. Fill the medical documentation after determination of the primary diagnosis of leishmaniasis.
19. Know how to form the plan of laboratory and additional examination of the patient.
20. Interpret the results of the laboratory examinations;
21. Analyze the results of the specific methods of the diagnosis depending on the material and period of the disease.
22. Form the individual plan of the treatment with accounting epidemiological data, stage of the

disease, complications, gravity of the condition, allergic anamnesis, and accompanying pathology.

23. Render the urgent help until the hospital treatment.
24. Form the plan of antiepidemic and preventive actions in the centre of the infection.
25. Give the recommendations on regime, diets, examinations, observations at period of convalescences.
26. To collect epidemiological anamnesis at rickettsioses and infections which are transmitted by ticks bites.
27. To characterize exanthemas and enanthemas in patients with transmissible diseases.
28. To analyze the results of clinical blood and urine tests.
29. To determine indications for lumbar puncture.
30. To extract tick from body surface.
31. To work out a plan of antiepidemic and prophylactic measures.
32. Normal CSF count indexes and in tick-borne encephalitis, Lyme's disease, louse-borne typhus and others rickettsioses.
33. Technique of estimation of meningeal signs and focal neurological symptoms.
34. Intensive care in case of complications (infection-toxic shock, DIC- syndrome, brain edema-swelling, collapse, acute cardiovascular deficiency) of tick-borne encephalitis, Lyme's disease, louse-borne typhus and others rickettsioses.
35. To estimate the results of serologic examination.

Malaria. Species of plasmodia: 1. _____, 2. _____, 3. _____, 4. _____
5. _____ Sources of invasion: 1. _____, 2. _____ Mechanisms of invasion:
1. _____, 2. _____, 3. _____. Carrier _____. Seasonality _____. Immunity _____
Phases of pathogenesis _____

Clinical manifestations: _____

Stages of paroxysm (clinical picture):

1. _____
2. _____
3. _____

Clinical peculiarities of malaria Vivax: _____

Ovale: _____

Falciparum: _____

Malariae: _____

Knowlesi: _____

Statement to investigation of malariae: 1. _____, 2. _____
3. _____

Laboratory tests: _____

Complications: _____

Clinical symptoms of malarial coma: _____

Treatment of malarial coma: _____

Clinical symptoms of hemoglobinuric fever: _____

Treatment of hemoglobinuric fever: _____

I. Specific treatment regimen:

1. Vivax _____

2. Ovale _____

3. Falciparum _____

4. Malariae _____

5. Knowlesi _____

II. Pathogenetic: _____

III. Symptomatic: _____

Preventive measures: 1. _____

2. _____ 3. _____

Leishmaniasis. Etiology of leishmaniasis: family _____, genus _____. Source of infection _____; way of transmission _____; carriers _____; seasonality _____

Clinical classification of leishmaniasis: 1. _____, 2. _____, 3. _____

Pathogenesis of visceral leishmaniasis: _____

Classification of visceral leishmaniasis: 1. _____, 2. _____, 3. _____, 4. _____

Visceral leishmaniasis clinical manifestation: _____

Complications: _____

Differential diagnostics: _____

Pathogenesis of dermal leishmaniasis _____

Dermal leishmaniasis forms: 1. _____, 2. _____

Clinical manifestation of dermal leishmaniasis. I. Old World: _____

II. New World : _____

III. mucocutaneous leishmaniasis _____

Complications: _____

Differential diagnostics : _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Symptomatic: _____

Rules of discharge from hospital: _____

Preventive measures _____

Tick-borne encephalitis. Agent: _____ genus _____ family _____

Source and reservoir of infection _____

Seasonality, risk groups _____

Mechanisms, factors of invasion _____

Phases of pathogenesis: _____

Classification: I. By clinical manifestations: _____

II. By severity: _____

III. By duration: _____

Clinic. Incubation period. _____ Initial manifestations: _____

Skin and tunica mucosa changes: _____

Cardio-vascular changes: _____

Changes of respiratory system: _____

Neurologic manifestations: _____

Complications. Of nervous system: _____ of heart _____
_____ of lungs _____

Clinical outcome and consequences: _____

Laboratory diagnostics. Clinical blood and urine tests: _____

Specific, serologic: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis. General: _____

Specific emergency: _____

Specific planned: _____

Lyme's disease. Agent: _____ genus _____ family _____

Source, reservoir and carriers of infection _____

Mechanisms of invasion _____ Seasonality, risk group _____

Phases of pathogenesis: _____

Clinical variants, their manifestations: 1. _____

2. _____

3. _____

Complications. _____

Laboratory diagnostics. Common blood, liquor and synovial fluid tests: _____

biochemical blood analysis: _____

specific, serum diagnostics (titer): _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis. General: _____

Emergency chemoprophylaxis: _____

Common characteristic of rickettsioses.

Classification: I. _____

II. _____

III. _____ IV. _____ V. _____

Louse-borne typhus, Brill-Cinser's disease. genus _____ family _____

Source of infection _____ Mechanisms of invasion _____ carrier _____

Seasonality, risk group _____

Clinical and epidemiological peculiarities of Brill-Cinser's disease: _____

Phases of pathogenesis of Louse-borne typhus: 1. _____ 2. _____ 3. _____

4. _____ 5. _____

Postmortem changes: _____

Clinic of heart and vessels affections: _____

Clinic of nervous system affection: _____

Description of rash: _____

Clinic. Incubation period. _____ Initial period, duration, manifestations: _____

Period of height, symptoms: _____

Signs of convalescence period: _____

Complications: _____

Laboratory diagnostics. Common blood and liquor tests: _____

Specific, serum diagnostics (titre) 1. _____ 2. _____

3. _____

Peculiarity of Brill-Cinser's disease immunodiagnostic: _____

Therapy. Etiotropic: _____

Pathogenetic: _____

Discharge from hospital: _____

Prophylaxis. General: _____

Emergency chemoprophylaxis: _____

Specific planned: _____

Test tasks

№ 1

Patient 54 years old. Onset was acute with fever, with reached 40 °C to 3rd day, severe headache, insomnia. Plentiful rash appeared on 5th day. On examination: Patient excited, hallucinations. Hyperemia of face, injection of sclera, petechial rash on crossover pleat of conjunctiva. Plentiful rose and petechial rash on sides of trunk and extremities. Tremor of tongue is observed.

A. What is preliminary diagnosis?

- a) typhoid fever;
- b) hemorrhagic fever;
- c) meningococemia;
- d) louse-borne typhus;
- e) measles;
- f) viral encephalitis.

B. What symptoms are typical for the disease?

- a) severe headache;
- b) dormancy;
- c) hallucinations;
- d) hepatolienal syndrome;
- e) symptom Kiari-Avcin;
- f) tongue deviation;
- g) rose-petechial rash;
- h) tachycardia.

C. What essential methods of laboratory diagnostics of the disease?

- a) clinical blood count;
- b) bacteriological analysis of urine;
- c) agglutination reaction;
- d) complement fixation reaction;
- e) hemagglutination-inhibition reaction;
- f) bacteriological analysis of blood.

D. What drugs are used for treatment of the disease?

- a) penicillin;
- b) tetracycline;
- c) chloramphenicol;
- d) gentamicin;
- e) norfloxacin;
- f) cefepime.

№ 2

Patient 25 years old, admitted with complaints on chill, fever up to 39 °C, severe headache, nausea, vomiting, moderate pain in region of neck, shoulders, tingling and palpitations of extremities. On examination: fourth day of the disease. Face, skin, conjunctivas are hyperemic, injections of vessels of sclera. In region of neck is primary affect – oval erythema with lighter center. Tonus of neck muscles is decreased. There are no active movements of hands. Patient arrived from Far East, where he worked as lumber-man.

A. What is the preliminary diagnosis?

- a) tuberculosis meningitis;
- b) botulism;
- c) tick-borne encephalitis;
- d) poliomyelitis;
- e) trunk encephalitis;
- f) meningococcal meningitis.

B. What symptoms are typical for the disease?

- a) fever 38-39 °C;
- b) pain in region of neck and shoulders;
- c) hemiparesis;
- d) abdominal pain;
- e) diarrhea;
- f) cough.

C. What methods of laboratory diagnostics are essential?

- a) clinical blood count;
- b) microscopy of CSF;
- c) virusological;
- d) electronic microscopy;
- e) reaction of indirect agglutination;
- f) PCR.

D. What drugs are used for treatment of the disease?

- a) anti-influenza gamma globulin;
- b) zidavudin;
- c) serum immunoglobulin;
- d) steroids;
- e) antibiotics;
- f) ribavirin.

№ 3

Female patient 54 years old, was admitted with complaints on fever up to 39 °C, pain in joints and muscles, hyperhidrosis. On examination: erythema (diameter - 6 cm) with cyanosis in the centre without subjective manifestation is registered at the skin of neck. Anterior cervical glands are palpated. Patient took away tick from her 10 days ago.

A. What is the preliminary diagnosis?

- a) marseilles fever;
- b) erysipelas;
- c) erysipeloid;
- d) tick-borne encephalitis;
- e) Q-fever;
- f) Lyme's disease.

B. What symptoms are typical for the disease?

- a) heart rhythm disturbance;
- b) erythema annulare;
- c) spastic pareses and paralyses;
- d) generalized lymphadenopathy;
- e) face skewness;
- f) changes of joints configuration.

C. What methods of laboratory diagnostics are essential?

- a) microscopy of biopsy material in erythema place;
- b) virusological;
- c) bacterioscopic analysis of blood;
- d) complement fixation reaction;
- e) PCR;
- f) immune-enzyme analysis.

D. What drugs are used for treatment of the disease?

- a) antibiotics;
- b) serum of convalescents;
- c) acyclovir;
- d) specific donor immunoglobulin;

e) steroids;

f) nonsteroidal antiphlogistic preparations

№ 4

Patient 44 years old. Onset was acute with fever up to 40 °C, chill, severe headache, and insomnia. Patient came back from Crimea 1 day ago. Remittent fever was observed during 3 weeks. Face is hyperemic, injections of vessels of sclera. Primary affect (diameter - 4 mm) black colour in the form of ulcer is in region of lower extremity. Regional glands are painful and enlarged. Abundant maculopapular rash has appeared on 3th day. It had remained before body temperature was normal.

A. What is the preliminary diagnosis?

- a) Q-fever;
- b) hemorrhagic fever;
- c) meningococcemia;
- d) typhus;
- e) marseilles fever;
- f) Lyme's disease.

B. What symptoms are typical for the disease?

- a) severe headache;
- b) insomnia;
- c) hepatolienal syndrome;
- d) presence of primary affect;
- e) positive pinch sign;
- f) tongue deviation;
- g) roseolo-petechial rash.
- h) comparative bradycardia.

C. What methods of laboratory diagnostics are essential?

- a) clinical blood count;
- b) analysis of CSF;
- c) compliment fixation reaction with rickettsia Prowazekii;
- d) compliment fixation reaction with antigen R. conorii;
- e) indirect fluoroimmunoassay;
- f) bacteriological analysis of blood.

D. What drugs are used for treatment of the disease?

- a) a) penicillin;
- b) tetracycline;
- c) chloramphenicol;
- d) gentamicin;
- e) e) norfloxacin;
- f) sumamed.

№ 5

Name the carrier of malariae:

- a) Fly.
- b) Jackals.
- c) Kissing pincers.

- d) Horse-flies.
- e) Anopheles mosquito.

№ 6

What is the agent of malariae?

- a) Bacteria.
- b) Protozoa.
- c) Rickettsia.

- d) Fungi.
- e) Viruses.

№ 7

Name of the agent of Indian visceral leishmaniasis kala-azar.

- a) L.donovani donovani.
- b) L.donovani infantus.
- c) L.d.donovani archibaldi.

- d) L.tropica minor.
- e) L.tropica major.

№ 8

Name the agent of town type dermal leishmaniasis.

- a) L.donovani donovani.
- b) L.tropica major.
- c) L.tropica minor.

- d) L.donovani infantus.
- e) L.d.donovani archibaldi.

№ 9

Name the transferer of dermal leishmaniasis.

- a) Gnats.
- b) Jackals.
- c) Kissing pincers.

- d) Horse-flies.
- e) Mosquitos.

№ 10

Name the source of infection in visceral leishmaniosis:

- a) Rodents.
- b) Man.
- c) Jackals.

- d) Dogs.
- e) Gnats.

№ 11

For what visceral leishmaniasis skin defects are typical?

- a) East-African.
- b) Mediterranean.
- c) Indian kala-azar.

- d) Dermal leishmaniasis.
- e) In all types.

№ 12

What changes it is typical in blood test for leishmaniasis?

- a) Indian kala-azar.
- b) In all types of visceral leishmaniasis.
- c) East-African.

- d) Mediterranean visceral.
- e) Of the New World leishmaniasis.

№ 13

In what type of leishmaniasis it needs to study the thick drop of blood, the punctate of bone marrow and lymphonoduses?

- a) Of the Old World dermal leishmaniasis.
- b) Pendjeh ulcer.
- c) Of the New World dermal leishmaniasis.
- d) Visceral leishmaniasis.
- e) In all types.

№ 14

The source of infection at malariae is:

- a) Patient with malariae.
- b) Gametecarrier of plasmodia.
- c) Gnat.
- d) Mosquito.
- e) Rodent.

№ 15

What symptoms are in initial periods of the Indian kala-azar?

- a) Primary affect.
- b) Fever.
- c) Flaccidity.
- d) Spleen increasing.
- e) All enumerated is correct.

№ 16

What disease is accompanises by arising the ulcer which forms resemble crater, bottom is coated by pus and borders consists might infiltrate?

- a) Dermal form of plague.
- b) Dermal leishmaniasis.
- c) Tularemia.
- d) Anthrax.
- e) Trivial carbuncle.

№ 17

Can the following symphoms be existed in clinic of visceral leishmaniasis?

- a) Expressed arthralgia.
- b) Expressed muscule pain.
- c) Pains in gastrocnemii muscles.
- d) Exhaustion, reduction of the muscles tone.
- e) Sharp exhaustion, muscular hypertension.

№ 18

For what leishmaniosis arising of leishmanoids is typical?

- a) Pendjeh ulcer.
- b) Indian kala-azar.
- c) Mediterranean visceral.
- d) East-African.
- e) Of the New World leishmaniasis.

№ 19

For what leishmaniasis "nose of tapir" is typical?

- a) Mediterranean.
- b) Indian kala-azar.
- c) Of the New World type.
- d) East-African.
- e) Dermal leishmaniasis.

№ 20

For what type of leishmaniasis ulcer of chiclers is typical ?

- a) Indian kala-azar.
- b) Mediterranean visceral type.
- c) East-African visceral.
- d) Of the New World dermal leishmaniasis.
- e) Central-Asiatic dermal.

№ 21

Is it possible that in uncared stage of visceral leishmaniasis such kind of complications can be:

- a) Enterocolitis.
- b) Nephritis.
- c) Abscess.
- d) Edema of larynx.
- e) all enumerated is correct.

№ 22

Can the following symptoms be existed in a peak of the visceral leishmaniasis?

- a) Fever.
- b) Expressed spleen increasing.
- c) Liver increasing.
- d) Anemia and granulocytopenia.
- e) All enumerated is correct.

№ 23

Female patient 42 years old, was admitted with complaints on fever, chill, headache Onset was acute in a morning with chill and subsequent heat, fever up to 40 °C, severe headache, myalgia. The paroxysm ended in 6 hrs with normalizing of temperature, profuse sweating, and weakness. In 48 hrs there was similar paroxysm.

On examination: enlargement of spleen and lever. Some time before visited Azerbaijan.

A. *What is the preliminary diagnosis:*

- a) sepsis,
- b) Brill's disease,
- c) malaria,
- d) typhoid fever,
- e) louse-borne typhus.
- a) hallucinations,
- b) meningeal signs,
- c) hepatolienal syndrome,
- d) chill, profuse sweating,
- e) anaemia,
- f) jaundice,
- g) gland enlargement.

B. *What symptoms are typical for the disease:*

- C. *What methods of laboratory diagnostics are used of the disease:*
- virusological,
 - bacteriological,
 - parasitology of smear and tick drop,
 - clinical blood count,
 - reaction of complement fixation,

- lumbar puncture.
- D. *What drugs are used for treatment of the disease:*
- penicillin,
 - primaquin,
 - cloroquin,
 - fansidar,
 - furazolidon,
 - ofloxacin.

№24

Half a year ago the student, 20 years old, arrived from India. At this moment his temperature has been increased, appeared weakness, adynamia and insignificant spleen increasing. Later on the background of high fever it is noted that spleen has already been increased significantly (before navel), blunt stomachache arrived and liver increased.

In hemogram - anemia, sharp leucopenia, lympho-monocytosis, thrombocytopenia.

- A. *What is most possible diagnosis?*

- dermal leishmaniasis,
- brucellosis,
- chronic sepsis,
- malaria,
- visceral leishmaniasis.

- B. *What are typical symptoms of this disease?*

- meningeal signs,
- prolonged fever,
- hepatolienal syndrome, gland enlargement,
- nausea and vomiting,
- anaemia, hemolytic jaundice.

- C. *What kind of labtest are useful for diagnosis in this case?*

- bacteriological,
- parasitologic method,
- reaction of Wright,
- Bordet-Gengou test, ELISA,
- clinical blood test.

- D. *What kind of medicines must be prescribed in this case?*

- glucantim,
- tetracycline,
- heparin,
- solyusurmin,
- acetylsalicylic acid.

№ 25

The Ukrainian businessman has returned from South America, where he has visited the harvest of rubber. On his returning to his motherland he noted the ulcer on his right ear. The ulcer extended to all ear quickly, later the auricle began to fall to pieces.

- A. *What diagnosis is the most probable?*

- erysipelas,
- furunculosis,
- dermal leishmaniasis,
- chancere,
- cutaneous blastomycosis.

- B. *What clinical symptoms are most typical for this disease?*

- fever of 39-40°C,
- solitary ulcers,
- polylymphadenitis,
- enlargement of liver and spleen levels,
- arthritises.

- C. *What methods of laboratory diagnostics are used at this disease?*

- bacteriological,
- virology,
- parasitologic method,
- reaction of indirect hemagglutination,
- Bordet-Gengou test, ELISA.

- D. *Methods of disease treatment:*

- amphotericin B,
- tetracycline,
- glucantim,
- corticosteroids,
- solyusurmin.

Recommended medicines (To write prescriptions)

- Aminazinum
- Amphotericin B;
- Artemether+ Lumefantrine
- Artesunate + Sulfadoxine-pyrimethamine
- Artesunate+Amodiaquine
- Chloramphenicol
- Clindamicin
- Dexamethasonum
- Dexamethasonum;
- Dihydroartemisinin+piperazine
- Dopaminum
- Etamsylatum.
- Glucantim;
- Heparinum;
- Ketoconazole;
- Lasix;
- Natrium oxybutirat;
- Neohaemodesum;
- Pentamidine;
- Phenobarbital;
- Prednisolone;
- Quinine;
- Reamberin;
- Rheopolyglucinum;
- Ribavirin;
- Sibazonum;
- Solyusurmin;
- Strophanthinum;
- Sumamed;
- Tetracyclin.

EXAMINATION OF PATIENT (TRANSACTIONS OF ANSWERS)

Patients first name, second name and patronymic, age, sex			Points
1	Complaints		
	Anamnesis of disease		
	Anamnesis epidemica		
	Anamnesis of life		
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.		
3	Cardiovascular system examination.		
4	Physical examination of the respiratory system.		
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).		
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.		
7	Basic syndrome.		
8	Intrasynndrome differential diagnosis.		
9	Preliminary clinical diagnosis.		
10	Examination plan.		
11	Assessment of laboratory findings and interpretation of instrumental findings.		
12	Determining principles of treatment, tactics of management, the necessary routine of work rest, diet.		
13	Determining prognosis and preventive measures for the given patient.		

Solving practical skills are assessed with "1", "0,5", "0".

Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

VIRAL HEPATITIS AND HIV-INFECTION

STUDY 8.

General characteristics of viral hepatitis. Clinic of hepatitis with oral-fecal and parenteral route of transmission. Laboratory diagnosis viral hepatitis. Treatment of acute viral hepatitis. Chronic viral hepatitis.

Date _____

As a result of the theme study student must know the followings questions:

1. Pathogens of viral hepatitis, their properties, antigen composition, stability in an environment.
2. Source of infection, mechanism, routes and factors of transmission of viral hepatitis depending on a pathogen. Epidemiology importance of patients with effaced and anicteric forms. Susceptibility of different age groups. Risk groups. Seasonality. Immunity.
3. Pathogenesis of viral hepatitis depending on an pathogen. Biochemical syndromes (cytolysis, cholestasis, mesenchymal inflammation, hepatic-cellular insufficiency). Morphological changes in a liver.
4. Classification of viral hepatitis.
5. Clinic of viral hepatitis typical form by periods of disease depending on etiology (A, B, C, D, E) and severity. Atypical forms.
6. Laboratory and instrumental diagnostics of viral hepatitis. Markers of viral hepatitis.
7. Clinical and laboratory criteria of viral hepatitis severity.
8. Differential diagnostics of viral hepatitis between themselves and with other infectious (leptospirosis, influenza, malaria etc.) and not infectious diseases (hemolytic and obturative jaundice etc.).
9. Complications of viral hepatitis. Pathogenesis, clinic by the stages, laboratory diagnostics and treatment of hepatic coma.
10. Treatment of viral hepatitis depending on the severity and etiology. Base therapy. Indications for prescription of antiviral medicines and inductors of endogenous interferon.
11. Rules of discharge from hospital and clinical supervision of viral hepatitis convalescents. Dispensary system. Rehabilitation of recoveres. Prognosis.
12. Prophylaxis of viral hepatitis depending on etiology. Passive and active immunization. Vaccines.
13. Chronic viral hepatitis. Etiology, epidemiology, pathogenesis, classification, clinic, laboratory diagnosis.
14. Principles of treatment in dependence of etiology and clinical courses prognosis, and outcomes.
15. Criteria for antiviral treatment prescription and its efficacy.

As a result of study of theme a student must be able to:

1. To conduct percussion and palpation of liver and spleen.
2. To interpret the results of blood test at viral hepatitis.
3. To interpret the results of biochemical, serologic, virology tests at viral hepatitis.

Viral hepatitis. Etiology: Pathogen. Family. Genome. Antigens. Resistance.

1. HAV _____
2. HBV _____
3. HCV _____
4. HDV _____
5. HEV _____
5. HGV _____

Epidemiology: Sources of infection: _____

Routes of transmission: HAV, HEV _____

HBV, HDV, HCV _____

Seasonality: _____

Risk groups: _____

Age susceptibility: _____

Immunity: _____

Pathogenesis. Phases: I. _____ II. _____

III. _____ IV. _____

Peculiarities of HBV-infection pathogenesis: _____

Pathogenesis of hepatic coma development: _____

Biochemical syndromes: 1) _____; 2) _____; 3) _____; 4) _____

Classification. I. By etiology: 1) _____; 2) _____; 3) _____; 4) _____; 5) _____

II. By intensity of clinical displays: 1) _____; 2) _____; 3) _____; 4) _____

III. By duration of process: 1) _____; 2) _____; 3) _____

IV. By peculiarities of disease course: 1) _____; 2) _____

V. By severity: 1) _____; 2) _____; 3) _____; 4) _____

VI. By prevailing biochemical syndrome kind: 1) _____; 2) _____; 3) _____

Clinic of typical form of viral hepatitis by the periods of disease:

I. _____ period (variants of course and their basic manifestations)

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____

II. _____ period (basic symptoms) _____

III. _____

Clinical peculiarities of HAV-infection: _____

HBV: _____

HCV: _____

HDV: _____

HEV: _____

Criteria of viral hepatitises severity: _____

Complications: _____

Clinic of hepatic coma by the stages (basic symptoms)

I. _____

II. _____

III. _____

IV. _____

Methods of diagnostics: _____

Clinicolaboratory criteria of severity: _____

Therapy depending on the degree of severity:

I. _____

II. _____

III. _____

Treatment of hepatic coma: _____

Criteria of convalescents discharge from hospital: _____

Prophylaxis. General: _____

Specific: _____

Etiology of chronic viral hepatitis: _____

Syndromes and clinic manifestation of chronic viral hepatitis: _____

Laboratory diagnosis of chronic viral hepatitis

Viral markers of chronic HCV hepatitis

Viral markers of chronic HBV hepatitis

Criteria, management of scheme of antiviral therapy of chronic HCV hepatitis

Criteria of efficacy

Criteria, management of scheme of antiviral therapy of chronic HBV hepatitis

Criteria of efficacy

Extrahepatic manifestation of chronic viral hepatitis:

Test tasks

№ 1

24 years old patient suddenly fall ill. Body temperature increased up to 38°C. Anorexia, nausea, vomiting, dull pains in right hypochondrium and epigastrium appeared. Temperature decreased on the 4th day of illness. Patient noticed darkening of urine and discolouring of excrements. The icteric colouring of scleras and skin appeared on a 6th day. On examination the state is satisfactory. Skin and scleras are icteric. Pulse – 68 of satisfactory qualities. Abdomen is soft, slightly painful under palpation in right hypochondrium. Liver + 1 sm, spleen is under the edge of costal arc.

A. What diagnosis is the most probable?

- a) viral hepatitis B,
- b) leptospirosis,
- c) sepsis,
- d) viral hepatitis A,
- e) acute cholecystitis.

B. What clinical symptoms are most typical?

- a) increase of the temperature to 38-39°C,
- b) pain in joints,
- c) nausea, vomiting,
- d) icterus,
- e) increase of liver and spleen levels.

C. What methods of laboratory diagnostics are used?

- a) clinical blood test,
- b) liver function tests,
- c) detection of HBs-antigen,
- d) detection of HCV-antibodies,
- e) detection of HAV-antibodies.

D. Methods of disease treatment:

- a) antiviral drugs,
- b) dietotherapy,
- c) hepatoprotectors,
- d) 5% solution of glucose,
- e) polyvitamins.

№ 2

Patient of 38 years old, complains on pain in right hypochondrium, weakness, reduce of appetite, icterus. He is ill about two weeks. Disease begun with malaise and pains in large joints, after that dull pain appeared in right hypochondrium, appetite reduced, urine become dark and skin and scleras become icteric.

On examination state is moderate severity. Temperature – 36,5°C. Skin and scleras are icteric. Pulse – 68 of satisfactory filling and tension. Tongue is moist, coated with white fur. Abdomen is soft, painful in right hypochondrium. Liver +3 sm. In blood test: leukopenia, relative lymphocytosis, ESR – 4 mm/h.

A. What diagnosis is the most probable?

- a) viral hepatitis A,
- b) viral hepatitis E,
- c) viral hepatitis B,
- d) chronic hepatitis,
- e) leptospirosis.

B. What clinical symptoms are most typical?

- a) fever of 39-40°C,
- b) pains in large joints,
- c) increase of liver and spleen,
- d) dark color of urine,
- e) discolouring of excrement.

C. What methods of laboratory diagnostics are used?

- a) neutrophilic leukocytosis, increase of ESR,
- b) moderate leukopenia, lymphomonocytosis, ESR normal or decreased,
- c) increased activity of ALT,
- d) increase of bilirubin due to indirect fraction,
- e) increase of bilirubin due to direct fraction.

D. Methods of disease treatment:

- a) antibiotics,
- b) sulfonamides,
- c) 5% solution of glucose,
- d) cholagogic,
- e) vitamins of group B.

№ 3

A. Find markers of acute viral hepatitis B:

- | | |
|----------------------|----------------------|
| a) antiHbsAg, | d) antiHBeAg, |
| b) HbsAg, | e) antiHbcoreAg IgM, |
| c) antiHbcoreAg IgG, | f) antiHEV IgM. |

B. What kind of markers does possitive in patient with chronic hepatitis C?

- | | |
|------------------|--|
| a) anti HCV IgG, | d) anti HDV, |
| b) anti HCV IgM, | e) anti HCV (NS ₃ , NS ₄ , NS ₅ , core) |
| c) anti HbsAg, | f) anti HGV. |

C. What is the typical changes in liver function test in acute viral hepatitis?

- | |
|--|
| a) mercuric chloride test 2,2 U, thymol test 1 U, АлАТ 0,64, general bilirubin 25,2 μmol/l, (direct 20, indirect 5,2), |
| b) mercuric chloride test 1,2 U, thymol test 15 U, ALT 0,5, general bilirubin 45 μmol/l, (direct 20, indirect 25), |
| c) mercuric chloride test 1,8 U, thymol test 4 U, ALT 1,0, general bilirubin 85 μmol/l, (direct 24,8, indirect 60,2), |
| d) mercuric chloride test 1,7 U, thymol test 7 U, ALT 5,4, general bilirubin 135 μmol/l, (direct 92, indirect 43), |
| e) mercuric chloride test 1,9 U, thymol test 5 U, ALT 0,84, general bilirubin 125 μmol/l, (direct 27, indirect 98). |

D. What symptoms are typical for liver encephalopaty?

- | | |
|------------------------------------|------------------------|
| a) high temperature, | g) chills, hot, sweat. |
| b) drowseness, inversion of sleep, | h) myalgia, |
| c) hand tremor, | i) excitation, |
| d) nausea, vomiting, anorexia, | j) blurred vision, |
| e) liver enlargement, | k) pain in abdomen, |
| f) decreasing of liver size, | l) diarrhea. |

№ 4

A. Vaccination should be recommended to everybody, IN EXEPTION of:

- | | |
|-------------------------------------|--|
| a) medical staff workers, | d) patients with chronic liver diseases, |
| b) contact person with HBV patient, | e) patients, who often undergoes blood product trasfussion and hemodialysis. |
| c) recovered person, | |

B. After effective vaccination patient will have possitive:

- | | |
|--------------------|--------------|
| a) HbsAg, | d) HBV ДНК, |
| b) anti HBs, | e) anti HBe. |
| c) anti HBcor IgG, | |

C. What kind of HBV markers should be investigate person before vaccination?

- | | |
|-------------------------------------|---------------------------|
| a) HBsAg, anti HBs, anti HBcor IgG, | d) HBeAg, anti HbeAg, |
| b) Anti HBcor IgM, | e) HBsAg, anti HBcor IgM. |
| c) HBV DNA (PCR), | |

D. What kind of mediction ought be prescibed for prevention of HBV transmission in newborn child?

- | |
|--|
| a) HBV vaccine |
| b) specific immunoglobulin against HBV |
| c) normal human immunoglobulin |
| d) HBV vaccine + specific immunoglobulin against HBV |
| e) Pegintron, Lamivudin |

Recommended medicines (To write prescriptions).

- | | |
|---------------------------------------|------------------------------------|
| 1. Acidum alfa lipoicum | 17. Immunofanum |
| 2. Amixinum | 18. Infezol 100 |
| 3. Ascorutinum | 19. Lamivudin |
| 4. Atropinum | 20. Lactulosum |
| 5. Benzylpenicillinum-natrium | 21. Norfloxacin |
| 6. Chloramphenicoli succinas solubile | 22. No-spa |
| 7. Contrical | 23. Peginterferon alfa-2a, alfa-2b |
| 8. Cycloferonum | 24. Platyphyllinum |
| 9. Doxycyclini hydrochloridum | 25. Prednisolonum |
| 10. Enterogelum | 26. Pentoxyphyllin |
| 11. Etamsylatum | 27. Polyphepanum |
| 12. Festal | 28. Ribavirin |
| 13. Furosemidum | 29. Sofosbuvir |
| 14. Glutarginum | 30. Daclatasvir |
| 15. Hepasol-neo | 31. Lidypasvir |
| 16. Hylac forte | |
| 32. Vicasolum | |

1. EXAMINATION OF PATIENT (TRANSACTIONS OF ANSWERS)

Patients first name, second name and patronymic, age, sex			Points
1	Complaints		
	Anamnesis of disease		
	Anamnesis epidemica		
	Anamnesis of life		
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.		
3	Cardiovascular system examination.		
4	Physical examination of the respiratory system.		
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).		
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.		
7	Basic syndrome.		
8	Intrasymptom differential diagnosis.		
9	Preliminary clinical diagnosis.		
10	Examination plan.		
11	Assessment of laboratory findings and interpretation of instrumental findings.		
12	Determining principles of treatment, tactics of management, the necessary routine of work rest, diet.		
13	Determining prognosis and preventive measures for the given patient.		

2. Solving practical skills are assessed with "1", "0,5", "0".

3. Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

STUDY N 9.

HIV-infection and AIDS-associated diseases. TORCH – infections. Toxoplasmosis.

Date _____

As a result of study of theme a student is under an obligation to know the followings questions:

1. Causative agent of HIV-infection, antigens structure, properties.
2. Biologic cycle of HIV.
3. Risk group of population for HIV.
4. Immune response in HIV-infection.
5. Pathogenesis of HIV-infection and morphologic changes in AIDS. Mechanism of immunodeficiency.
6. Clinical classifications of HIV-infection (WHO, CDC).
7. Definitions of HIV-infection, generalized lymphadenopathy, and AIDS
8. Clinical features in dependence of stages of HIV-infection.
9. AIDS-defining opportunistic infections and malignances.
10. Diagnostic criteria of AIDS.
11. Laboratory methods of investigation in HIV/AIDS.
12. Main principles and schemes of antiviral treatment of HIV.
13. High Active Antiretroviral Therapy (HAART)
14. Specific treatment in dependence of opportunistic infections.
15. Prophylaxis of HIV-infection. Law aspects of interaction between patient and doctor.
16. Concept of TORCH-infections, etiology and epidemiology of diseases;
17. Clinical and laboratory diagnostics of TORCH-infections;
18. Principles of treatment and prophylaxis of TORCH-infections, prognosis of diseases;
19. Etiology of toxoplasmosis, life cycle of pathogen;
20. Epidemiology of toxoplasmosis;
21. Pathogenesis of toxoplasmosis;
22. Clinical classification and symptoms of toxoplasmosis depending from different forms of disease;
23. Peculiarities of course of toxoplasmosis at pregnant, innate toxoplasmosis, in HIV-infected;
24. Laboratory and differential diagnostics of toxoplasmosis;
25. Complications and outcome of toxoplasmosis, prognosis of disease;
26. Principles of treatment and prophylaxis innate and acquired toxoplasmosis;
27. Rules of hospitalization.

As a result of study of theme a student is under an obligation to be able:

1. Carry out specific urgent prophylaxis in case of medical accident.
2. Estimation of results of immunologic test.
3. Investigation of lymphatic system.
4. Obtain biologic material from patient with AIDS for microbiologic investigation.

HIV-infection: Etiology: Family: _____ genus: _____ species: _____ type: _____

Morphology: _____ Antigenic structure: _____

Resistance: _____

Epidemiology: Sources of infection: _____

Ways of transmission: _____ Seasonality: _____

Groups of risk: _____ Immunity: _____

Pathogenesis: _____

Clinical classification (WHO). Acute HIV-infection: _____

Chronic HIV-infection: I stage. _____

II. _____

III. _____

IV. _____

Classification (CDC).

CD4 level	A	B	C

Clinical manifestation: Acute: _____

Chronic: I. _____

II. _____

III. _____

IV. _____

AIDS-defining diseases: _____

Clinical feature of: *Pneumocystis carinii pneumonia*: _____

Tuberculosis: _____

Kaposi's sarcoma: _____

Cryptosporidiosis: _____

AIDS dementia complex: _____

Laboratory investigation: _____

Diagnosis criteria of AIDS: _____

	AIDS with neurological clinic	AIDS with lung distribution	AIDS with prolonged fever	AIDS with GI tract disturbances	AIDS-defining malignancies
Causative agents of opportunistic infections					
Plan of laboratory and instrumental investigation					

Specific diagnostics: _____

Complications: _____

Treatment: Antiviral therapy of HIV (by groups): _____

Principles of HAART: _____

Efficacy criteria of HAART: _____

Treatment of opportunistic infections: *Tuberculosis*: _____

Pneumocystis carinii pneumonia: _____

HSV-infections: _____
 Cryptosporidiosis: _____
 Candidosis: _____

 Toxoplasmosis: _____

 Discharging from hospital: _____

 Prevention: general: _____
 Specific (after exposure): _____

TORCH-infections

Definition: _____

 Pathogens: T _____ O _____, R _____, C _____, H _____
 Risk groups: _____

Toxoplasmosis

Etiology: Class: _____ Order: _____ Genus: _____ Species: _____
 Cycle of development: _____
 Phorms: _____
 Pathogenic factors / antigen structure: _____
 Staining: _____ Resistance: _____
 Epidemiology: Host of infection: _____
 Routs of transmission: _____ Season: _____
 Risk groups: _____ Immunity: _____
 Pathogenesis. Phases: _____

Classification. By route of inoculation: I. _____ II. _____
 By forms: I. _____ II. _____
 III. _____ IV. _____ V. _____
 By activeness of process: I. _____ II. _____
 By affection of organs: I. _____ II. _____ III. _____
 IV. _____ V. _____ VI. _____
 By gravity: I. _____ II. _____ III. _____
 Symptoms: _____

Laboratory tests: _____
 Complications: _____
 Specific diagnostics: _____

 Treatment: Specific: _____
 Pathogenetic: _____

 Discharge from hostital: _____
 Prevention: _____

Test tasks

№ 1

Drug addict male, 28 years old, came to a doctor with complaints of 1 month fever, fatigue, night sweatiness, and decreasing of body weight.

On physical examination doctor revealed oral thrush, enlarged occipital and cervical lymphatic nodes. Liver +1.5 cm, spleen + 1 cm. RBC – $2.8 \times 10^{12}/l$, Hb – 98 g/l, WBC – $3.4 \times 10^9/l$, lymph. – 12%. CD4+ lymph. – 154 cell/mcl. Ratio CD4/CD8 – 1.0.

A. What is more presumable diagnosis?

- a) infectious mononucleosis,
- b) AIDS,

- c) adenoviral infection,
- d) CMV-infection,
- e) sepsis.

B. *What are typical symptoms in stage of AIDS?*

- a) short fever,
- b) lymphadenopathy,
- c) hemorrhagic rash,
- d) decreased body weight more 10%,
- e) enlarged liver and spleen,
- f) headache,
- g) productive cough.

C. *What kind of laboratory tests should be used in this case?*

- a) ELISA anti HIV,
- b) PCR HBV,
- c) Western-blot,

- d) ELISA anti HCV,
- e) immunogramme
- f) bacteriologic investigation.

D. *What kind of therapy should be prescribed in this case?*

- a) AZT,
- b) AZT+3TC+EVF,
- c) ribavirin,
- d) interleukin-2,
- e) T-activin
- f) ddI
- g) fluconazole
- h) Peg-INF

№ 2

Young male complains on appearance of painful vesicles on penis. It has last for 2 years with periods of relapses and remissions. He took four courses of acyclovir and valacyclovir therapy. He has enlarged lymph nodes in occipital, cervical, axillary region.

What is the presumable diagnosis?

- a) CMV-infection,
- b) VZV,
- c) HIV-infection,
- d) Chicken pox,
- e) Staphylococcus infection of skin,
- f) Sepsis.

№ 3

Male, 25 years old, drug addict has present complaints on chills, increased temperature 38,5-39,0°C, general fatigue, unproductive cough, decreased memory, and depression. He has felt ill 3 months. Last year he had pleural effusion and pneumonia. On examination decreased body weight index, pale skin, lymphadenopathy. Breathlessness.

What is more possible diagnosis in this case?

- a) sepsis,
- b) HIV-infection, lymphadenopathy,
- c) HIV-infection, AIDS,
- d) nosocomial pneumonia,
- e) tuberculosis.

№ 4

Patient complains of breathlessness, severe fatigue, dizziness. Disease has gradually development of symptoms. Since 2 months patient had noticed short of breathing in physical exertion.

On examination lymphadenopathy, acrocyanosis, dyspnoea, Breath rate – 38 in min. T-37,2°C. In lungs harsh respiration. Percussion is normal. Roentgen film revealed increased picture in roots of lungs, butterfly-shape peribronchovascular infarction.

A. *What is the presumable diagnosis?*

- a) cryptosporidiosis,
- b) Pneumocystis carinii pneumonia,
- c) tuberculosis,
- d) bacterial pneumonia,
- e) legionellosis.

B. *Choose remedies for treatment of toxoplasmosis:*

- a) cotrimoxazole,
- b) ceftriaxone, chloramphenicol,
- c) clindamycin, dapsone,
- d) cefepime, vancomycin,
- e) gentamicin, rifampicin,
- f) pentamidine,
- g) atovaquone

C. *Choose medication for treatment of PCP:*

- a) azithromycin, chloramphenicol,
- b) cotrimoxazole, pentamidine,
- c) sulfadiazine/pyrimethamine,
- d) ethambutol, rifampicin, isoniazide,
- e) ketoconazole, fluconazole.

D. *What level of CD4+ lymphocyte is the predictor of appearance of AIDS-defining opportunistic infections?*

- a) CD more 500 cells,
- b) CD 200 cells,
- c) CD 100 cells,
- d) CD 400 cells,
- e) CD less 50 cells

E. *Choose medication for treatment of CMV or HSV-infection as opportunistic disease:*

- a) INF, ribavirin,
- b) acyclovir,
- c) valacyclovir,
- d) ddI
- e) ganciclovir,
- f) AZT,
- g) clarithromycin, azithromycin.

№ 5

A. *The agent of toxoplasmosis is:*

- a) Toxoplasma gondii
- b) Trichinella spiralis
- c) Trichocephalus trichiurus

- d) Brucella ovis
- e) Bacillus anthracis

B. *What route of people infecting is the most frequent:*

- a) usage of raw meat stuffing
- b) use of unboiled water from unknown reservoirs
- c) air-drop route
- d) by contacting with a sick human

- e) by failure of personal hygiene rules after socializing with lady-cats

C. *In what color the protoplasm of Toxoplasma is painted in case of staining by Romanovskiy-Gimza:*

- | | |
|-----------|-------------|
| a) Yellow | d) Ruby-red |
| b) Red | e) Rose |
| c) Blue | |

D. *What clinic is characteristic for chronic acquired toxoplasmosis:*

- | | |
|------------------------|---------------|
| a) Polilymphadenopathy | d) Fever |
| b) Double vision | e) Flatulence |
| c) Hepatosplenomegaly | |

E. *Fetus infecting in the 1 trimester of pregnancy causes development of:*

- | | |
|--------------------|---------------------|
| a) Hydrocephalys | d) Rachitis |
| b) Down's syndrome | e) Malignant tumors |
| c) Chorioretinitis | |

F. *It is possible to use for specific diagnostics*

- | | |
|--|------------------------|
| a) The smear of blood colored by Romanovskiy-Gimza | c) Paul-Bunel reaction |
| b) Sebin-Fel'dman reaction | d) Vidal reaction |
| | e) Wright reaction |

№ 6

45 years old householder is ill during 3 months. During this time disturb fever at the level of 37,3-37,4°C, weakness, malaise, periodic headache, enlargement of lymph nodes. A cat lives in the house of patient. On examination the state is satisfactory. Skin is of the ordinary color, without rash. Neck, sub- and supraclavicular, arm-pits, inguinal lymph nodes are enlarged in a size, dense, not knitted with surrounding tissues. There is vesicular respiration in lungs. Heart sounds are rhythmic. Abdomen is soft, painless. Enlarged liver and spleen is detected.

A. *What diagnosis is the most probable?*

- a) brucellosis,
- b) infectious mononucleosis,
- c) toxoplasmosis,
- d) AIDS,
- e) adenoviral infection.

B. *What clinical symptoms are most typical?*

- a) prolonged subfebrile fever,
- b) chills,
- c) polylymphadenitis,
- d) deterioration of sight,
- e) enlargement of liver and spleen size.

C. *What methods of laboratory diagnostics of the disease?*

- a) clinical blood test,
- b) complement fixation test,
- c) ELISA,
- d) reaction of indirect hemagglutination,
- e) reaction of inhibition of hemagglutination.

D. *Methods of disease treatment:*

- a) chloridinum,
- b) fansidar,
- c) metronidazolium,
- d) pyrimethamine,
- e) indometacinum

№ 7

24 year old woman admitter with first pregnancy, 20 weeks term. Lives in her own house, where retains two cats. Complains for fever up to 37,3 during the last month, expressed general weakness, sweating. OE: neck and inguinal lymphadenopathy, lymph nodes are slightly painful. Muscles are sensible on palpation.

1. *What is a diagnosis?*

2. *Make plan of examination*

3. *What specialists should consult a patient?*

Recommended medicines (To write prescriptions).

- | | |
|---------------------------------|----------------------------|
| 1. Abacavir (ABC) | 13. Itraconazole |
| 2. Amprenavir | 14. Ketoconazole |
| 3. Azitromycin | 15. Lamivudine (3TC) |
| 4. Cidofovir | 16. Metronidazol |
| 5. Clarytromycin | 17. Nelfinavir |
| 6. Clindamycine | 18. Nevirapine |
| 7. Cotrimaxozole | 19. Ritonavir |
| 8. Dapson | 20. Salcitabine (ddC) |
| 9. Didanosine (ddI) | 21. Stavudine (d4T, Зерит) |
| 10. Fluconazole | 22. Tenofovir |
| 11. Indinavir | 23. Zidovudine (AZT, ZTV) |
| 12. Interleikin-2 (Ronkoleikin) | |

EXAMINATION OF PATIENT (TRANSACTIONS OF ANSWERS)

Patients first name, second name and patronymic, age, sex			Points
1	Complaints		
	Anamnesis of disease		
	Anamnesis epidemica		
	Anamnesis of life		
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.		
3	Cardiovascular system examination.		
4	Physical examination of the respiratory system.		
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).		
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.		
7	Basic syndrome.		
8	Intrasymptom differential diagnosis.		
9	Preliminary clinical diagnosis.		
10	Examination plan.		
11	Assessment of laboratory findings and interpretation of instrumental findings.		
12	Determining principles of treatment, tactics of management, the necessary routine of work and rest, diet.		
13	Determining prognosis and preventive measures for the given patient.		

Solving practical skills are assessed with "1", "0,5", "0".

Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

STUDY N 10.

Fever of unknown origin. Brucellosis. Sepsis.

Date _____

As a result of the theme study student must know the followings questions:

1. Brucellosis, etiology, factors of agent's pathogenicity.
2. Brucellosis, epidemiology (sources and mechanisms of invasion, definition of brucellosis professional character).
3. Pathogenesis of brucellosis.
4. Clinical classification of brucellosis and sepsis.
5. Clinical manifestations of brucellosis depending on disease forms.
6. Pathogenesis and clinical manifestations of complications.
7. Brucellosis laboratory diagnostics.
8. Brucellosis, principles of treatment
9. Brucellosis, principles of prophylaxis.
10. Brucellosis, tactic of patients conducting in the case of the urgent states development.
11. Brucellosis, rules of the prophylactic medical examination of convalescents.
12. Sepsis etiology; factors of agent's pathogenicity.
13. Sepsis epidemiology (sources and mechanisms of invasion, definition of brucellosis professional character).
14. Pathogenesis of sepsis.
15. Clinical classification of sepsis.
16. Clinical manifestations of sepsis depending on disease forms. Clinic of gram-positive and gram-negative sepsis.
17. Pathogenesis and clinical manifestations of complications.
18. Sepsis laboratory diagnostics. Rules of blood and urine bacteriological investigation in patients on suspicion of sepsis.
19. Sepsis principles of treatment
20. Tactic of patients conducting in the case of the urgent states development in sepsis.
21. Rules of the prophylactic medical examination of convalescents in sepsis.

As a result of studying of theme student must be able to:

1. To follow the basic rules of work at the examination of infectious patient.
2. To obtain the case history with epidemiology information.
3. Examine the patient objectively and system-based and detect basic brucellosis, sepsis symptoms and syndromes; to confirm a clinical diagnosis for timely patient referral to in-patient treatment
4. To conduct differential diagnostics of brucellosis, sepsis.
5. On the basis of clinical examination to diagnose in time development of possible complications.
6. To draw up medical paper in fact of making out the provisional diagnosis (urgent notification in a district epidemiology branch).
7. To work out a plan of patient's laboratory and additional examination.
8. To estimate the results of laboratory examination.
9. To analyze the results of specific methods of diagnostics depending on the probed material and terms of disease.
10. To work out an individual plan of treatment taking into account epidemiologic information, period of disease, presence of complications, severity of the patient's state, allergic history, concomitant pathology; relief urgent action on the pre-admission stage.
11. To give recommendations in regard to the regimen, diet, examinations and to the medical observation in the period of convalescence.

Brucellosis. Etiology: genus _____, species: I. _____ II. _____ III. _____ IV. _____
Gram's stain: _____. Shape of microorganism: _____. Respiration type: _____.
Sporogenesis: _____. Presence of capsule: _____. Mobility: _____.
Factors of pathogenicity / antigen structure: _____

Resistance : _____

Epidemiology. Sources of infection: _____

Routes of transmission: 1. _____ 2. _____ 3. _____ Seasonality : _____

Risk groups: _____ Immunity: _____

Receptivity: _____

Pathogenesis. Phases: _____

Classification. By expression of clinical manifestations: I. _____ II. _____

By duration: I. _____ II. _____ III. _____ IV. _____

Forms of chronic disease: 1. _____ 2. _____ 3. _____

4. _____ 5. _____ 6. _____

Phases of chronic disease: 1. _____ 2. _____ 3. _____

Stages of chronic disease: 1. _____ 2. _____ 3. _____

By severity: I. _____ II. _____ III. _____

Clinic (basic symptoms and syndromes): _____

Complications:_____

Laboratory indices:_____

Specific diagnostics:_____

Therapy. Specific:_____

Pathogenetic:_____

Discharge from hospital:_____

Prophylaxis: General:_____

Specific:_____

Sepsis. Classification. By etiology:_____

By exposure rout:_____

Clinical forms: I. _____ II. _____ III. _____

By duration: I. _____ II. _____ III. _____ IV. _____

By severity: I. _____ II. _____ III. _____

Epidemiology: Sources of infection: _____ Routes of transmission : _____

Pathogenesis. _____

Clinic (basic symptoms and syndromes):_____

Laboratory indices:_____

Complications: 1. _____ 2. _____ 3. _____ 4. _____
5. _____ 6. _____

Specific diagnostics:_____

Therapy. Etiotropic:_____

Pathogenetic:_____

Discharge from hospital:_____

Prophylaxis:_____

Test tasks

Nº 1

Specify the criteria of making a diagnosis «sepsis»:

- a). Rise in body temperature to 40°.
- b). Inflammatory changes in peripheral blood.

- c). System inflammatory reaction syndrome and positive hemoculture.

d). Positive hemoculture.

e). Positive reaction on C-reactive protein.

№ 2

What is the agent of sepsis?

- a). Gram-negative bacteria.
- b). Diseases structure.
- c). Protozoa.

- d). Fungi.
- e). Viruses.

№ 3

To the group of what infections does brucellosis behave?

- a). Anthroponosis.
- b). Sapronosis.
- c). Zooantroponosis.

- d). Zoonosis.
- e). All of listed.

№ 4

Specify, what of the brucella's types is most frequently found in the structure of brucellosis morbidity?

- a). B. melitensis.
- b). B. suis.
- c). B. bovis.

- d). B. canis.
- e). B. ovis.

№ 5

Most widespread way of infection at brucellosis?

- a). Aerogenous.
- b). Alimentary.
- c). Transmissible.

- d). Sexual.
- e). Nothing of listed.

№ 6

The central link of gram-negative sepsis pathogenesis is:

- a). Decrease of endogenous hormones level.
- b). Presence of chronic concomitant diseases.
- c). Endotoxin effect.

- d). High microorganism's virulence.
- e). Decrease of gastric juice acidity level.

№ 7

Specify, the most high intensity of people infection of brucellosis is marked in what period of year?

- a). Summer period.
- b). Autumn period.
- c). Winter period.

- d). Spring period.
- e). Calve of cattle period.

№ 8

Specify, what drug can be used for treatment of sepsis as monotherapy?

- a). Cefalosporines.
- b). Penicillin.
- c). Aminoglycosides.

- d). Imipenem.
- e). Fluoroquinolones.

№ 9

In what type of leishmaniasis mucous membranes of throat, larynx, and sexual organs are usually damaged?

- a). Visceral type.
- b). Indian kala-azar.
- c). Urban dermal type.

- d). Of the New World dermal leishmaniasis.
- e). Pendjeh ulcer.

№ 10

32 years old veterinarian suddenly fall ill. Disease had begun with the increase of temperature up to 39°C, malaise, headache, irritability, insomnia. After that undulating fever with chills and sweating, pain in loin and joints appeared. On examination the state is satisfactory. Increased, slightly painful peripheral lymph nodes are palpated. A knee-joint is enlarged in a size, painful, hot by touch, skin above him is hyperemic. Heart sounds are weakened, weak systole murmur is on an apex. Pulse – 96, rhythmic. Abdomen is soft; liver is palpated on 1 sm below the edge of costal arc and spleen at the edge of costal rib.

A. What diagnosis is the most probable?

- a) infectious mononucleosis,
- b) malaria,
- c) brucellosis,
- d) toxoplasmosis,
- e) sepsis.

B. What clinical symptoms are most typical?

- a) fever of 39-40°C,
- b) chills and sweating,
- c) polylymphadenitis,
- d) enlargement of liver and spleen levels,
- e) arthritises.

C. What methods of laboratory diagnostics are used at this disease?

- a) bacteriological,
- b) virology,
- c) reaction of Wright,
- d) reaction of indirect hemagglutination,
- e) complement fixation test.

D. Methods of disease treatment:

- a) tetracycline,
- b) gentamycin,
- c) co-trimoxazolum,
- d) indometacin,
- e) acetylsalicylic acid.

№ 11

Previously, healthy female, 23 years old, was admitted at a hospital on the 2-d of disease. She had experienced abrupt chills, increased temperature 40 °C. On examination patient's condition is severe, mental disorientation, cyanosis, skin pale, on extremities – marble picture, coldness. Breathlessness. Breath rate – 34 in min. Diffuse dry rales

are in lungs. There is deep wound with surrounding redness on the skin of right sole. Ps – 140, BP – 70/40. Heart sounds are dull.

A. *What is most possible diagnosis?*

- a) meningococcemia,
- b) fulminate gram-positive sepsis,
- c) chronic sepsis,
- d) influenza,
- e) brucellosis.

B. *What are typical symptoms of this disease?*

- a) abrupt onset of fever,
- b) hectic temperature curve,
- c) fear of death,
- d) vomiting,
- e) big dry or humid necrosis on skin.

C. *What kind of labtest are useful for diagnosis in this case?*

- a) hemoculture in sugar media,
- b) immune-enzyme analysis,
- c) indirect hemagglutination test,
- d) coagulation blood test,
- e) clinical blood test.

D. *What kind of medicines must be prescribed in this case?*

- a) cephalosporin,
- b) antistaphylococcal gamma globulin,
- c) heparin,
- d) hemosorption,
- e) contrical.

Recommended medicines (To write prescriptions)

- | | |
|----------------------------|------------------------|
| 1. Acidum aminocapronicum, | 13. Meloxicam, |
| 2. Ampicillinum, | 14. Meropenem, |
| 3. Ceftazidime, | 15. Nimesulide, |
| 4. Ceftriaxon, | 16. Norfloxacin, |
| 5. Chloramphenicolum, | 17. Rheopolyglucinum |
| 6. Ciprofloxacinum, | 18. Rifampicinum, |
| 7. Co-trimoxazolum, | 19. Rofecoxib. |
| 8. Dexamethasonum, | 20. Streptomycinum, |
| 9. Diclofenac, | 21. Sulfocamphocainum, |
| 10. Doxycycline, | 22. Teicoplanin |
| 11. Etamsylatum, | 23. Tetracyclinum |
| 12. Indometacinum, | 24. Vancomycin |

Patients first name, second name and patronymic, age, sex		Points
1	Complaints	
	Anamnesis of disease	
	Anamnesis epidemica	
	Anamnesis of life	
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.	
3	Cardiovascular system examination.	
4	Physical examination of the respiratory system.	
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).	
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.	
7	Basic syndrome.	
8	Intrasynndrome differential diagnosis.	
9	Preliminary clinical diagnosis.	
10	Examination plan.	
11	Assessment of laboratory findings and interpretation of instrumental findings.	
12	Determining principles of treatment, tactics of management, the necessary routine of work and rest, diet.	
13	Determining prognosis and preventive measures for the given patient.	

Solving practical skills are assessed with "1", "0,5", "0".
Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

INFECTIOUS DISEASES WITH WOUND AND MULTIPLE ROUTS OF TRANSMISSION.

STUDY N 11.

Infectious diseases with primary affection of kidneys. Leptospirosis. Hemorrhagic fever with renal syndrome. Hemorrhagic fevers: yellow, Crimean-Congo, Marburg, Ebola, Lassa

Date _____

As a result of the theme study student must know the followings questions:

1. Pathogen of leptospirosis and its property. Serologic types.
2. Source of infection, mechanism, routes and factors of transmission of pathogen. Reservoir of infection. Natural and urban pestholes. Seasonality. Risk groups. Immunity.
3. Pathogenesis and pathological anatomy of leptospirosis.
4. Clinical classification of leptospirosis.
5. Clinic of leptospirosis depending on a form and severity. Relapses.
6. Complications of leptospirosis, their clinical picture.
7. Laboratory diagnostics of leptospirosis.
8. Clinical and laboratory criteria of severity.
9. Differential diagnostics of leptospirosis.
10. Treatment of leptospirosis and its complications.
11. Rules of discharge from hospital leptospirosis convalescent. Dispensary system. Prognosis.
12. Prophylaxis of leptospirosis (sanitation of natural pestholes, disinfection, veterinary measures, planned and urgent immunization of population, chemoprophylaxis).
13. What viruses are causes hemorrhagic fevers, their peculiarities and properties.
14. Sources of infection for hemorrhagic fevers, mechanisms and routes of transmission.
15. Definition of endemic infection.
16. Pathogenesis of hemorrhagic fevers.
17. Clinical symptoms of hemorrhagic fevers with syndrome of affection of kidneys.
18. Clinical symptoms of hemorrhagic fevers with hemorrhagic syndrome.
19. Peculiarities of extremely dangerous hemorrhagic fevers (Lassa, Ebola, Marburg, yellow).
20. Complications of hemorrhagic fevers.
21. Differential diagnostic of hemorrhagic fevers.
22. Laboratory diagnostics.
23. Treatment of hemorrhagic fevers.
24. Rules of discharge from hospital and out-patient supervision on patients after hemorrhagic fevers.
25. Rules in case of presence of patient with especially dangerous hemorrhagic fever in polyclinic, in train, in hotel or at home.

As a result of study of theme a student must be able to:

1. To interpret the results of blood test at leptospirosis and hemorrhagic fevers.
2. To interpret the results of biochemical, bacteriological and immunological researches at leptospirosis.
3. To inject antileptospirosis hyperimmune gamma globulin
4. Technique of taking samples for diagnostics of hemorrhagic fever with renal syndrome (HFRS), Crimean-Congo hemorrhagic fever, fevers Lassa, Ebola, Marburg, yellow fever, rules of transporting the material;
5. To know typical changes in clinical blood count.
6. To know typical changes in clinical urine analysis in different periods of a disease.
7. To estimate indexes of nitric exchange.
8. To be able to diagnose acute renal insufficiency.
9. To estimate coagulogram.
10. Correction of disseminated intravascular coagulopathy syndrome (DIC).
11. Correction of acute renal insufficiency.

Leptospirosis. Etiology. Family: _____ Genus: _____

Species: 1. _____ 2. _____ Serogroups: _____

Gram's stain: _____ Shape of microorganism: _____ Respiration type: _____

Sporogenesis: _____ Presence of capsule: _____ Mobility: _____ Factors of pathogenicity / antigen structure: _____

Resistance: _____

Epidemiology: Sources of infection: _____

Routes of transmission: _____

Factors of transmission: _____ Seasonality: _____

Risk groups: _____ Immunity: _____

Pathogenesis. _____

Classification. By expression of clinical manifestations (forms): I. _____ II. _____

Depending on the presence of icterus (forms): I. _____ II. _____

By severity: I. _____ II. _____ III. _____ IV. _____

Depending on the presence of relapses: I. _____ II. _____

Clinic (basic symptoms and syndromes): _____

Laboratory indices: _____

Complications: _____

Methods of diagnostics: _____

Therapy. Etiotropic: _____

Specific: _____
Pathogenetic: _____

Discharge from hospital: _____
Prophylaxis: General: _____
Specific: _____

HFRS. Pathogens: family: _____ genus: _____ species: _____
Source of infection: _____ mechanism of infection: _____
route of transmission: _____ seasonality: _____
Pathogenesis: _____

Pathogenesis of acute renal insufficiency: _____

Pathomorphological changes: _____

Clinical manifestation (by periods): I. _____

II. _____

III. _____

IV. _____

V. _____

Laboratory diagnostics (by periods): blood test: _____

Urine test: _____

Specific diagnostic: _____

Complications: _____

Symptoms of acute renal insufficiency: _____

Laboratory signs of acute renal insufficiency: _____

Therapy: _____

Crimean-Congo HF. Pathogens: family: _____ genus: _____ species: _____

Source of infection: _____ vector: _____ mechanism of infection: 1. _____

2. _____ routes of transmission: _____ seasonality: _____

Pathogenesis: _____

Pathomorphological changes: _____

Clinical manifestation (by periods): I. _____

II. _____

III. _____

Laboratory diagnostics (by periods): blood test: _____

liver function tests: _____

Specific diagnostic: _____

Complications: _____

Therapy: _____

Therapy of disseminated intravascular coagulopathy (by periods): _____

Yellow fever. Pathogens: family: _____ genus: _____ species: _____

Source of infection: _____ vectors: _____

routes of transmission: _____ seasonality: _____

Pathogenesis: _____

Pathomorphological changes: _____

Clinical manifestation _____

Laboratory diagnostics (by periods): blood test: _____

liver function tests: _____

Specific diagnostic: _____

Complications of yellow fever: _____

Diagnostics of yellow fever:

Methods: _____

Therapy: _____

Differential diagnostics of hemorrhagic fevers

Symptoms	HFRS	Crimean-Congo	Ebola, Marburg	Lassa	Yellow
Incubation period					
Sore throat					
Pain in chest, extremities					
Abdominal pain					
Vomiting, diarrhea					
Disturbances of vision					
Pain in back					
Edemas					
Massive internal bleedings					
Jaundice					
Hepatosplenomegaly					
Oliguria, anuria					

Test tasks

Nº 1

Who is carrier of virus of yellow fever?

- a) Mosquitoes
- b) Flies
- c) Ticks

- d) Mosquitoes
- e) Louse

Nº 2

Basic reservoirs of virus of yellow fever are in nature:

- a) Birds
- b) Kats
- c) Reptiles
- d) Marmosets monkeys
- e) Rodents

№ 3

How long is maximal incubation period of yellow fever (days):

- a) 1-2
- b) 3-6
- c) 7-10
- d) 10-15
- e) More than 15 days

№ 4

Basic clinical symptoms of illness in an initial period (stages of hyperemia):

- a) Intoxication syndrome
- b) «Amaril mask»
- c) Toxic chock
- d) Enlargement of lever and lien
- e) Meningoencephalitis

№ 5

30 years old zootechnician, apply to a doctor with complaints on 39°C fever, headache, pain in the muscles of feet, mostly in sural, pain in loin, icteric colouring of skin and scleras, dark urine and decreasing of its volume.

On examination: state of the expressed moderate severity. Temperature – 38,6°C. Scleras are injected. herpetic eruptions on lips and wings of nose. Skin and sclera are icterus painted. There are palpated dense and painful liver and slightly enlarged spleen. Symptom of Pasternatsky is positive on both sides.

A. What diagnosis is the most probable?

- a) viral hepatitis A,
- b) viral hepatitis B,
- c) icteric form of infectious mononucleosis,
- d) leptospirosis,
- e) malaria.

B. What clinical symptoms are most typical?

- a) shocking chill,
- b) nausea, vomiting,
- c) myalgia,
- d) hepatolienal syndrome,
- e) polyuria.

C. What methods of laboratory diagnostics are used at this disease?

- a) bacteriological,
- b) bacterioscopic,
- c) biochemical,
- d) serologic,
- e) biological test.

D. Methods of disease treatment:

- a) penicillin,
- b) gentamycin,
- c) antileptospirotic immunoglobulin,
- d) prednisolone,
- e) 5% solution of glucose.

№ 6

Patient 36 years old, forester. There was acute onset with severe chill, fever up to 39 °C, headache, myalgia, pain in his back, blurred vision. On 3rd day petechial rash appeared in armpits, on skin of chest, narrow ribbon-chapped.

On examination: face was swelled, scleral bleedings. On mucosal layer of throat – hemorrhagic enanthema. Pulse – 66 /min, rhythmic. Heart tones were deaf. Abdomen was soft, liver was enlarged on 2 sm. lower costal arch. Highly positive Pasternacksky symptom, daily urine quantity – 500 ml.

A. What is the diagnosis:

- a) leptospirosis,
- b) hemorrhagic fever with renal syndrome,
- c) meningococcaemia
- d) influenza,
- e) hemorrhagic vasculitis.

B. What symptoms are typical for the disease:

- a) chill,
- b) pain in back,
- c) nasal, intestinal bleedings,
- d) oliguria, anuria,
- e) petechial rash.

C. What essential methods of diagnostics of the disease:

- a) bacteriological,
- b) virological,
- c) agglutination and lysis reaction,
- d) compliment fixation reaction,
- e) neutralization reaction.

D. What drugs are used for treatment of the disease:

- a) tetracycline,
- b) ribavirin,
- c) rheopolyglukin,
- d) serum of convalescents,
- e) lasix.

№ 7

Patient 22 years old. Admitted after acute onset of disease with chill, fever up to 40 °C, headache, pain in joints, repeated vomiting, hyperemia of face, neck, sclera and skin of upper part of chest. On 3rd day of the disease hemorrhagic ribbon-shaped rash appeared on skin of chest, back, abdomen and hips.

On examination: profuse nasal bleeding. Face is pale. Patient is stuporous. Light jaundice of skin. Tachycardia up to 110 /min. BP – 90/60 mm. hg., heart tones deaf. Abdomen is painful on palpation in upper part. Liver is enlarged on 2 sm., sensitive. Pasternacksky symptom is positive. There is oliguria, hematuria. 2 days before returned form Crimea, where lived in a tent in steppe.

A. What is the diagnosis:

- a) meningococemia,
- b) Crimean-Congo hemorrhagic fever,
- c) louse-borne typhus,
- d) influenza,
- e) leptospirosis.

B. What symptoms are typical for the disease:

- a) a) shill, fever to 40 °C,

- b) positive meningeal signs,
- c) enlargement of spleen,
- d) profuse nasal, uterine, intestinal bleedings,
- e) star-like hemorrhagic rash, especially on hips.

C. *What methods of laboratory diagnostics are used:*

- a) virologic,
- b) bacteriological,
- c) complement fixation reaction,

- d) neutralization reaction,
- e) immune enzyme assay.

D. *What methods of treatment are used:*

- a) ribavirin,
- b) etamsylat,
- c) penicillin,
- d) blood transfusion,
- e) plasmapheresis.

№ 8

Patient from Ethiopia, 18 years old, hospitalized on the 4th day of illness with complaints about a chill, fever to 40°C, intensive headache, nausea, vomiting. OE: hyperemia of neck, upper part of trunk, hyperemia and edema of face is expressed. Signs of conjunctivitis, lymphadenopathy; liver and lien are enlarged. On the skin of trunk and lower extremities hemorrhagic rash is observed. Vomiting with blood, nasal and gingival bleeding are appeared. A liver is enlarged to 3 sm. An icterus appeared. In urine is macrohematuria. Pasternatsky symptom is positive. Meningeal signs are moderately expressed. In blood test: Er-3,6×10¹²/l, Hb-122 of g/l, Ht-0,32, e-2,6×10⁹/l, b-18%, y-1%, lf-11%, m-8%, y-0%, s-62%, ESR-36 mm/l, Tr-62×10⁹/l. From past history: patient works in tourist agency and accompanied the group of foreign tourists.

1. *What is diagnosis?*

2. *Plan of laboratory diagnostics.*

3. *Treatment.*

Recommended medicines (To write prescriptions).

- | | |
|---------------------------------------|------------------------------------|
| 1. Acidum alfa lipoicum | 17. Hylac forte |
| 2. Amixinum | 18. Immunofanum |
| 3. Ampicillinum | 19. Infezol 100 |
| 4. Ascorutinum | 20. Interferon alfa-2a, alfa-2b |
| 5. Atropinum | 21. Lamivudin |
| 6. Benzylpenicillinum-natrium | 22. Lactulosum |
| 7. Chloramphenicoli succinas solubile | 23. Norfloxacin |
| 8. Contrical | 24. No-spa |
| 9. Cycloferonum | 25. Peginterferon alfa-2a, alfa-2b |
| 10. Doxycyclini hydrochloridum | 26. Platyphyllinum |
| 11. Enterosgelum | 27. Prednisolon |
| 12. Etamsylatum | 28. Pentoxyphyllin |
| 13. Festal | 29. Polyphhepanum |
| 14. Furosemidum | 30. Ribavirin |
| 15. Glutarginum | 31. Spironolactonum |
| 16. Hepasol-neo | 32. Vicasolum |

Patients first name, second name and patronymic, age, sex		Points
1	Complaints	
	Anamnesis of disease	
	Anamnesis epidemica	
	Anamnesis of life	
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.	
3	Cardiovascular system examination.	
4	Physical examination of the respiratory system.	
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).	
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.	
7	Basic syndrome.	
8	Intrasynndrome differential diagnosis.	
9	Preliminary clinical diagnosis.	
10	Examination plan.	
11	Assessment of laboratory findings and interpretation of instrumental findings.	
12	Determining principles of treatment, tactics of management, the necessary routine of work and rest, diet.	
13	Determining prognosis and preventive measures for the given patient.	

Solving practical skills are assessed with “1”, “0,5”, “0”.
Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

STUDY N 12.

Infectious diseases with primary affection of nervous system: rabies, tetanus. Complications of drugs prescription in infectious diseases. Immunoprophylaxis (planned and urgent).

Date _____

As a result of the theme studying student must know the following questions:

4. Causative agent of rabies and his properties.
5. Source and ways of transmission of rabies. Epizootic spreading of rabies among wild and domestic animals.
6. Pathogenesis and pathological anatomy of rabies.
7. Classification of rabies. The periods of clinical course of typical rabies. Atypical forms.
8. Clinical symptoms in depending on the period of rabies.
9. Differential diagnostics of rabies.
10. Methods of laboratory diagnostics of rabies. Present Negri corpuscles, (Negri bodies) in brain of died animals. Application of biological test.
11. Treatment of rabies.
12. Preventive measures of rabies. Sanitary - veterinary actions. Specific preventive measures by an active - passive method. Application of rabies immunoglobulin. Contingents of persons with the increased risk of infection due to rabies. Indications to vaccination and technique of carrying out. The characteristic of vaccines and method of application.
13. Causative agent of tetanus and his property.
14. Source and ways of transmission infection due to tetanus. Communication of disease with traumatism. Tetanus of wartime and peacetime. Immunity.
15. Pathogenesis and pathological anatomy of tetanus.
16. Clinical forms of tetanus depending on an entrance gate.
17. Clinical classification of tetanus. The period's of clinic course of illness.
18. Clinical symptoms depending on form, period and severity of tetanus.
19. Complications of tetanus. The prognosis.
20. Differential diagnostics of tetanus.
21. Treatment of tetanus. Application antitetanic serum, tetanus immunoglobulin (TIG) by intramuscular injection, antitoxin. Features of etiologic medication.
22. Preventive measures of tetanus. Methods of the general, surgical and specific preventive measures. Application of antitoxin and tetanus toxoid-containing vaccine. Scheduled and emergency preventive measures
23. Aims of immune prophylaxis (vaccination);
24. Calendar of vaccination;
25. Indications and contraindications to vaccination;
26. Vaccination against tuberculosis, polio, diphtheria, pertussis, tetanus, measles, rubella, mumps, viral hepatitis B.

As a result of studying of theme student must be able to:

1. To make application of vaccine against rabies.
2. To make application antitetanic serum. To calculate doses.
3. To make application tetanus immunoglobulin (TIG) by intramuscular injection. To calculate a dose.

Rabies. Etiology: Family: _____ genus: _____ species _____ type: _____

Morphology: _____ Antigenic structure _____

Resistance _____

Epidemiology: Sources of infection _____

Ways of transmission _____ Seasonality _____

Groups of risk _____ Immunity _____

Pathogenesis: _____

Classification. Forms: I. _____ II. _____ III. _____ IV. _____ V. _____

Stages: I. _____ II. _____ III. _____

Clinical manifestation: _____

Laboratory investigation: _____

Specific diagnostics: _____

Complications: _____

Treatment: _____

Prevention: general: _____

Specific: _____

Tetanus: Etiology: Family: _____ genus: _____ species: _____
 Gram staining: _____ Morphology: _____ Type of breath: _____
 Presence of spore _____ capsule _____ Motility _____ Antigenic structure _____
 Factors of virulence _____ Resistance _____
 Epidemiology: Sources of infection _____ Ways of transmission _____ Seasonality _____
 Groups of risk _____ Immunity _____
 Pathogenesis: _____

Classification. On mechanism of infection: I. _____ II. _____ III. _____
 On prevalence: General: I. _____ II. _____ III. _____ IV. _____
 Local: I. _____ II. _____
 On degree: IV. _____ III. _____ II. _____ I. _____
 On duration: I. _____ II. _____ III. _____
 Clinical manifestation: _____

Laboratory investigation: _____

Specific diagnostics: _____

Complications: _____

Treatment: Etiotropic: _____

Pathogenetic: _____

Discharging from hospital: _____

Prevention: general: _____

Specific: _____

COMPLICATIONS OF DRUGS PRESCRIPTION IN INFECTIOUS DISEASES

Drug disease (DD):

Definition: _____

Risk factors _____

Phases of pathogenesis: _____

Classification of agents of DD:

1) Side reactions due to pharmacological properties of drugs: _____

2) Toxic complications caused by relative or absolute overdosing of drugs: _____

3) Secondary effects, caused by immunobiological disturbances in organism: _____

4) Allergic (immunological) immediate or delayed types: _____

5) Idiosyncrasy: _____

6) Withdrawal syndrome: _____

Symptoms _____

Laboratory tests _____

Prophylactics: _____

Anaphylactic shock. Definition: _____

Pathogenesis: _____

Classification: _____

Symptoms: _____

Differential diagnosis: _____

Treatment: _____

Emergency care: _____

Serum sickness: Definition: _____

Pathogenesis: _____

Classification: _____

Symptoms: _____

Differential diagnosis: _____

Treatment: _____

Prophylaxis: _____

Stevens-Johnson syndrome. Definition: _____

Pathogenesis: _____

Classification: _____

Symptoms: _____

Differential diagnosis: _____

Treatment: _____

Prophylaxis: _____

Lyell's syndrome. Definition: _____

Pathogenesis: _____

Classification: _____

Symptoms: _____

Differential diagnosis: _____

Treatment: _____

Prophylaxis: _____

Intestinal dysbiosis. Definition: _____

Pathogenesis: _____

Classification: _____

Symptoms: _____

Differential diagnosis: _____

Treatment: _____

Prophylaxis: _____

Test tasks

No 1

To what group of infections tetanus belongs to?

- | | |
|---------------------------|-----------------------------|
| a) Antroponosis | d) Endogenous infections |
| b) Vector-born infections | e) Antropozoonotic diseases |
| c) Slow infections | |

No 2

Characteristic clinical sign(s) of rabies are:

- | | |
|---------------------------|---------------------------|
| a) Air phobia | d) Hypotonia, miocarditis |
| b) Nephritis, hypothermia | e) Hyperthermia |
| c) Hepatitis, itching | |

No 3

Characteristic clinical sign(s) of tetanus are:

- | | |
|---|-------------------------------------|
| a) Opisthotonus | d) Trismus, seizures |
| b) Photophobia, hypothermia | e) Hypotonia, hypothermia, vomiting |
| c) Acousticophobia, itching, bulbar palsy | |

No 4

Methods of specific prophylaxis of tetanus:

- | | |
|--|---|
| a) Administration of antivirals | d) Injection of specific immune globulin |
| b) Immunization of infants | e) Isolation of patient and injection of specific immune globulin |
| c) Immunization of adults from groups of risk. | |

No 5

Clinical phases of rabies are:

- | | |
|---|---------------|
| a) Prodromal | d) Excitatory |
| b) Prodromal, full-blown disease, convalescence | e) Paralytic |
| c) Prodromal, full-blown disease, chronisation | |

No 6

Rabies virus impairs on:

- | | |
|---------------------------|------------------------------|
| a) Musculoskeletal system | d) Liver and kidneys |
| b) Urinary tract | e) Skin and mucous membranes |
| c) Nervous system | |

No 7

Methods of diagnosis of rabies in animals are:

- a) Bacteriological
- b) Virological
- c) Histological

- d) Diagnosis is based on epidemiologic data only
- e) Diagnosis is based on clinical data only

№ 8

What are the main reservoir and the source of infection in rabies in nature?

- a) Foxes
- b) Dogs and cats
- c) Affected human
- d) Wolves
- e) Subjects contaminated with saliva of infected animals.

№ 9

The way in which tetanospasmin is transported into CNS:

- a) Through perineuronal lymphatic spaces
- b) Through the blood stream, lymphatic system, and neuronal transport
- c) Through blood-brain barrier
- d) Along sensitive nerves
- e) Through the blood stream

№ 10

In tetanus:

- a) Organism is sensitive to antibiotics
- b) Diagnosis is confirmed by blood culture
- c) Tetanospasmin is transported from the site of inoculation through the blood stream
- d) The main cause of death is cardiac arrest
- e) Tetanus immune globulin is used for prevention

№ 11

Patient 42 years old, farm worker was admitted to a hospital on 3-d day of diseases with complains of fatigue, sleeplessness, filling of fear. He had been bitten in the right hand by fox. The disease gradually begun when he noticed swelling and tenderness in place of bite scar. After that he experienced headache, increased temperature 37,4°C, agitation and fear. On examination: aggressive and agitated, tachypnea. Difficulties of breathing due to spasmus of larynx was developing when he attempted to drink a water. This condition last nearly some seconds after that it disappeared.

A. What is the most probable diagnosis?

- a) poliomyelitis,
- b) botulism,
- c) encephalitis,
- d) rabies,
- e) brucellosis.

B. What are the most important symptoms of this disease?

- a) painful spasm of muscles of larynx,
- b) noisy and faltering breathing,
- c) dilated pupils,
- d) bradycardia,
- e) agitation.

C. What kind of laboratory test can you use in this case?

- a) agglutination test,
- b) ELISA of skin samples,
- c) compliment fixation test,
- d) microscopic investigation of brain,
- e) neutralization test.

D. What's the treatment of this condition?

- a) antirabies serum,
- b) 5% glucose solution,
- c) Chloral hydrate,
- d) antibiotic,
- e) Lactosolum.

№ 12

54 year old male was examined by doctor. He complains on difficulties opening of mouth and pain and stiffness in muscles. This condition appeared two days ago when he had felt pain in face and neck muscles. Before disease he had deep trauma of knee. On examination he has clear consciousness. Sweatiness, increased temperature, difficulties to swallowing, trismus of masticatory muscles. Rigid neck, seizers of extremities muscles.

A. What is the most probable diagnosis?

- a) meningitis,
- b) botulism,
- c) encephalitis,
- d) rabies,
- e) brucellosis.

B. What are the most typical symptoms of this disease?

- a) palpitation, psychosis,
- b) trismus of mastication muscle,
- c) sardonic grin,
- d) rigid neck,
- e) paralysis.

C. What are typical complications of this disease?

- a) bronchitis and pneumonia,
- b) muscles rupture,
- c) borne fracture,
- d) abscess and hemorrhages ,
- e) bradycardia.

D. What is treatment of this disease?:

- a) surgical treatment,
- b) injection of antitetanic serum 100000 -150000 IU,
- c) injection of antitubulinic serum 80-100 IU,
- d) tetracycline,
- e) atropine.

Recommended medicines (To write prescriptions).

1. Aminazine,
2. Chloralhydrate
3. Diazepam
4. Haloperidolum
5. Relanium
6. Seduxene
7. Tiopentalum

Patients first name, second name and patronymic, age, sex		Points
1	Complaints	
	Anamnesis of disease	
	Anamnesis epidemica	
	Anamnesis of life	
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.	
3	Cardiovascular system examination.	
4	Physical examination of the respiratory system.	
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).	
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.	
7	Basic syndrome.	
8	Intrasynndrome differential diagnosis.	
9	Preliminary clinical diagnosis.	
10	Examination plan.	
11	Assessment of laboratory findings and interpretation of instrumental findings.	
12	Determining principles of treatment, tactics of management, the necessary routine of work and rest, diet.	
13	Determining prognosis and preventive measures for the given patient.	

Solving practical skills are assessed with "1", "0,5", "0".
Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

STUDY N 13.

Quarantine and especially dangerous diseases. Plague. Tularemia. Anthrax. Protection of case history.

Date _____

As a result of the theme studying student must know the following questions:

1. Definition of "quarantine infection" and "especially dangerous infection"
2. Etiology of plague, factors of pathogenicity of pathogen;
3. Epidemiology of plague, routes of transmission;
4. Pathogenesis of plague;
5. Clinical classification of plague;
6. Clinical symptoms of different forms of plague;
7. Differential diagnostics of plague;
8. Methods of laboratory diagnostics of plague. Rules of transporting of biologic material;
9. Principles of treatment and prophylaxis of plague, prognosis of disease;
10. Rules to hospitalization of patients with plague;
11. Etiology of anthrax, source of infection and way of passing to the infection;
12. Pathogenesis and clinical symptoms of anthrax;
13. Classification of clinical forms of anthrax;
14. Laboratory and differential diagnostics of anthrax, express methods of diagnostics;
15. Principles of treatment and prophylaxis of anthrax, prognosis of disease; application of specific anthrax immunoglobulin;
16. Rules of hospitalization of patients with anthrax; preventive measures, measures in case of outbreak;
17. Specific and urgent prophylaxis of anthrax;
18. Basic properties of pathogen of tularemia;
19. Epidemiology of tularemia, source and routes of transmission of the infection;
20. Pathogenesis and pathomorphology of tularemia;
21. Clinical classification of tularemia. Symptoms depending from the form of disease. Complications.
22. Laboratory and differential diagnostics of tularemia;
23. Principles of treatment and prophylaxis of tularemia, prognosis of disease;
24. Rules of hospitalization of patients with tularemia;
25. Urgency and historical data on smallpox;
26. Etiology of smallpox;
27. Source and routes of transmission of smallpox.
28. Pathogenesis of smallpox.
29. Clinic of smallpox, complications;
30. Laboratory and differential diagnostics of smallpox;
31. Principles of treatment and prophylaxis of smallpox, prognosis of disease; Importance of specific prophylaxis;
32. Rules of hospitalization of patients with smallpox.

As a result of studying of theme student must be able to:

1. To collect anamnesis of disease taking into account epidemiology information;
2. To examine a patient and expose basic symptoms and syndromes of disease;
3. To ground a clinical diagnosis, work out a plan of laboratory and additional diagnostics of patient;
4. To collect biological material from patient with plague, tularemia and anthrax;
5. To design a medical document in fact of the set diagnosis, to give urgent notification in sanitary station;
6. To interpret the results of laboratory and instrumental methods;
7. To work out an individual plan of treatment of patient; to count dosage and duration of antibiotics course for treatment of plague, anthrax.
8. To work out a plan of anti epidemic and prophylactic measures and urgent specific prophylaxis.

Plague. Etiology: Family: _____ genus _____ species _____

Gram staining _____ Morphology _____ Type of breath _____

Presence of spore _____ capsule _____. Motility _____ Antigenic structure _____

Factors of virulence _____ Resistance _____

Epidemiology: Sources of infection _____ Vectors _____

Ways of transmission _____ Seasonality _____

Groups of risk _____ Immunity _____

Pathogenesis: _____

Clinical classification: 1. Localized forms: a). _____, b). _____, c). _____

2. Generalized forms: a). _____, b). _____, c). _____, d). _____

Clinical manifestation: 1. Localized forms: _____

2. Generalized forms: _____

Laboratory investigation: _____

Complications: _____

Treatment: Ethiotropic: _____

Pathogenetic: _____

Discharging from hospital: _____

Prevention: general: _____
Specific: _____

Tularemia. Etiology: Family: _____ genus: _____ species _____
Gram staining: _____ Morphology: _____ Type of breath: _____
Presence of spore _____ capsule _____ Motility _____ Antigenic structure _____
Factors of virulence _____ Resistance _____
Epidemiology: Sources of infection _____ Vectors _____
Ways of transmission _____ Seasonality _____
Groups of risk _____ Immunity _____
Pathogenesis: _____

Clinical classification: 1. Localized forms: _____
2. Generalized forms: _____
Clinical manifestation: 1. Localized forms: _____

2. Generalized forms: _____

Laboratory investigation: _____

Complications: _____

Treatment: Ethiotropic: _____

Pathogenetic: _____

Discharging from hospital: _____

Prevention: general: _____
Specific: _____

Anthrax. Etiology: Family: _____ genus: _____ species _____
Gram staining: _____ Morphology: _____ Type of breath: _____
Presence of spore _____ capsule _____ Motility _____ Antigenic structure _____
Factors of virulence _____ Resistance _____
Epidemiology: Sources of infection _____ Vectors _____
Ways of transmission _____ Seasonality _____
Groups of risk _____ Immunity _____
Pathogenesis: _____

Clinical classification: _____

Clinical manifestation: 1. Localized forms: _____

2. Generalized forms: _____

Laboratory investigation: _____

Differential diagnostic

Symptoms of the disease	Plague	Tularemia	Anthrax
Onset of the disease			
Signs of intoxication			
Severity of the disease			
Description of bubo			
Description of skin lesions			
Localization of pathological process			
Confirmative laboratory tests			

Complications: _____

Treatment: Ethiotropic: _____

Pathogenetic: _____

Discharging from hospital: _____

Prevention: general: _____

Specific: _____

Smallpox. Etiology: Family: _____ genus _____ strain _____

Factors of virulence _____ Resistance _____

Epidemiology: Sources of infection _____

Ways of transmission 1. _____ 2. _____ 3. _____

Groups of risk _____ Immunity _____

Pathogenesis: _____

Clinical classification of smallpox: 1. Mild forms: 1). _____, 2). _____, 3).

2. Moderate forms: 1). _____, 2). _____

3. Severe forms: 1). _____, 2). _____

Clinical manifestation: Periods of disease: 1) _____ 2) _____

3) _____ 4) _____ 5) _____

Laboratory methods: _____

Complications: _____
 Treatment: _____
 Discharging from hospital: _____
 Prevention: general: _____
 Specific: _____

Test tasks

№ 1

To what genus virus of smallpox belongs to:

- | | |
|-------------------|----------------|
| a) Orthopoxvirus; | c) Adenovirus; |
| b) Paramyxovirys; | d) Retrovirus. |

№ 2

How long incubation period of smallpox:

- | | |
|---------------|---------------|
| a) 1-3 days; | c) 7-12 days; |
| b) 1-5 hours; | d) 4-5 weeks. |

№ 3

What kind of coetaneous lesions are typical for smallpox:

- | | |
|----------------|-----------------|
| a) Rose spots; | c) Hemorrhages; |
| b) Vesicles | d) Papules. |

№ 4

Who is the source of infection for smallpox:

- | | |
|-------------|-----------|
| a) Rodents; | c) Human; |
| b) Fish; | d) Birds. |

№ 5

What is the main place of multiplication of virus of smallpox:

- | | |
|--------------------|-------------|
| a) Nervous tissue; | c) Skin; |
| b) Myocardium; | d) Muscles; |

№ 6

What is a primary place of lesions appearance in smallpox:

- | | |
|-----------------------|---------------------|
| a) Upper extremities; | c) Low extremities; |
| b) Forehead and face; | d) Trunk. |

№ 7

The hunter of 36-years-old developed an acute disease with chills and feeling hot, increasing of temperature up to 39-40°C, agonizing headache, and pain in muscles and in inguinal region.

On examination: patient's skin of face and conjunctiva are hyperemic, lips are dry; tremor of tongue is seen; it is dry and thick coated. The right low extremities is flexed in knee and hip joints and closed to body. There are lymph nodes, enlarged up to size of geese egg and sharply painful in inguinal region. Their contours are smoothed and skin over them is hot, hyperemic and stretched.

A. *What is your preliminary diagnosis?*

- Erysipeloid;
- Anthrax;
- Bubonic plague;
- Bubonic tularemia;
- Cat's scratch disease.

B. *Choose the drug, need for treatment of this patient?*

- Streptomycin;
- d) Furazolidone;
- Penicillin ;
- Tetracycline .
- Erythromycin;

C. *What symptoms are the most typical for this disease?*

- Chills, high temperature;
- Smoothing of bubo contours;
- Disorders of consciousness;
- Hyperemia and stretching of skin over bubo.
- Forced position;

D. *Which laboratory tests are used for diagnostic of this disease?*

- Virusologic;
- Biologic test;
- Culture of blood;
- Serologic tests.
- Bacterioscopy;

№ 8

The 35-year-old deratisator was admitted to the hospital in very severe condition on the 3-d day of the disease.

On examination: the patient is restless and delirious, his temperature is 39,5°C and speech is rambling. Skin of face and conjunctiva are brightly hyperemic and tip of nose and ears are cyanotic. Rate of breath is 36/min. The patient produces frequent cough with abundant bloody liquid sputum. In right low part of lung shortness of sound on percussion and rare small bubble rales on auscultation are found. Sound of heart are dull, pulse rate is 140 bites/min. Tongue is dry and chalky coated.

A. *What diagnosis is more likely?*

- a) Lobar streptococcal pneumonia;
- b) Influenza;
- c) Pulmonary tularemia;
- d) Pulmonary plague;
- e) Tuberculosis.

B. *Choose the treatment, need for this patient?*

- a) Streptomycin;
- b) Penicillin;
- c) Streptomycin + Doxycycline;
- d) Chloramphenicol .
- e) Gentamicin;

C. *What symptoms are the most typical for this disease?*

- a) Sharp pain in thorax;
- b) Abundant moist rales of different caliber;
- c) Fluid bloody sputum;
- d) Enlargement of peripheral lymph nodes.
- e) Cough;

D. *What specimens have to be taken from patient for bacteriologic diagnostic of this disease?*

- a) Sputum;
- b) Air from patient's room;
- c) Blood;
- d) Vomiting masses.
- e) Urine;

Recommended medicines (To write prescriptions).

1. Amoxicillin
2. Ampicillin
3. Amycacin
4. Cephalexin
5. Cephalexim
6. Ciprofloxacin
7. Ciprofloxacin
8. Dexamethasone
9. Dimedrol

10. Doxycyclin
11. Gentamycin
12. Levofloxacin
13. Nimeculid
14. Oxytetracyclin
15. Penicilline
16. Rheosorbilact
17. Streptomycin

Patients first name, second name and patronymic, age, sex		Points
1	Complaints	
	Anamnesis of disease	
	Anamnesis epidemica	
	Anamnesis of life	
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.	
3	Cardiovascular system examination.	
4	Physical examination of the respiratory system.	
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).	
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.	
7	Basic syndrome.	
8	Intrasynndrome differential diagnosis.	
9	Preliminary clinical diagnosis.	
10	Examination plan.	
11	Assessment of laboratory findings and interpretation of instrumental findings.	
12	Determining principles of treatment, tactics of management, the necessary routine of work and rest, diet.	
13	Determining prognosis and preventive measures for the given patient.	

Solving practical skills are assessed with “1”, “0,5”, “0”.
Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

STUDY N 14.

Infections with primary affection of skin. Erysipelas. Erysipeloid (swine erysipelas). Differential credit
Date _____

As a result of the theme studying student must know the following questions:

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Etiology of erysipelas, factors of pathogenicity of pathogen; 2. Epidemiology of erysipelas, routes of penetration of streptococcus in skin; 3. Pathogenesis of erysipelas; 4. Clinical classification of erysipelas; 5. Clinical symptoms of different forms of erysipelas; 6. Clinical and differential diagnostics of erysipelas; 7. Complications of erysipelas 8. Principles of treatment and prophylaxis of erysipelas, prognosis of disease; 9. Rules to hospitalization of patients with erysipelas; 10. | <ol style="list-style-type: none"> 16. Basic properties of pathogen of erysipeloid; 17. Epidemiology of erysipeloid, source and routes of transmission of the infection; 18. Pathogenesis of erysipeloid; 19. Clinical classification of erysipeloid. Symptoms depending from the form of disease. Complications. 20. Laboratory and differential diagnostics of erysipeloid; 21. Principles of treatment and prophylaxis of erysipeloid, prognosis of disease; 22. Rules of hospitalization of patients with erysipeloid; |
|--|---|

As a result of studying of theme student must be able to:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. To collect anamnesis of disease taking into account epidemiology information; 2. To examine a patient and expose basic symptoms and syndromes of disease; 3. To ground a clinical diagnosis, work out a plan of laboratory and additional diagnostics of patient; 4. To conduct a differential diagnosis; | <ol style="list-style-type: none"> 5. To design a medical document in fact of the set diagnosis, to give urgent notification in sanitary station; 6. To interpret the results of laboratory and instrumental methods; 7. To work out an individual plan of treatment of patient; 8. To work out a plan of ant epidemic and prophylactic measures. |
|---|---|

Erysipelas. Etiology: Family: _____ genus: _____ species _____

Gram staining: _____ Morphology: _____ Type of breath: _____

Presence of spore _____ capsule _____ Motility _____ Antigenic structure _____

Factors of virulence _____ Resistance _____

Epidemiology: Sources of infection _____ Vectors _____

Ways of transmission _____ Seasonality _____

Groups of risk _____ Immunity _____

Pathogenesis: _____

Classification: By terms : I. _____ II. _____ III. _____

By spreading: I. _____ II. _____ III. _____

By localization: I. _____ II. _____ III. _____

By character of local lesions: I. _____ II. _____ III. _____ IV. _____

Symptoms: _____

Complications: _____

Laboratory tests: _____

Specific diagnostics: _____

Treatment. Specific: _____

Pathogenetic: _____

Discharge conditions: _____

Prophylaxis. General: _____

Specific: _____

Erysipeloid. Etiology: Family: _____ Genus: _____ Species: _____

Gram staining: _____ Morphology: _____ Type of breath: _____

Presence of spore _____ capsule _____ Motility _____ Antigenic structure _____
 Factors of virulence _____ Resistance _____
 Epidemiology: Sources of infection _____ Vectors _____
 Ways of transmission _____ Seasonality _____
 Groups of risk _____ Immunity _____
 Pathogenesis: _____

 Classification: _____

 Symptoms: _____

 Complications: _____
 Laboratory tests: _____

 Specific diagnostics: _____

 Treatment. Specific: _____

 Pathogenetic: _____

 Discharge form hospital: _____
 Prophylaxis: General: _____
 Specific: _____

Test tasks

No 1

What is the causative agent of erysipelas?

- | | |
|-------------------|------------------|
| a) DNA-viruses; | d) streptococci; |
| b) staphylococci; | e) pneumococci. |
| c) RNA-viruses; | |

No 2

In case of frequently recurrent erysipelas one prescribes:

- | | |
|--|--|
| a) penicillin 300,000 units for 5-7 days; | d) lincomycini hydrochloridi 30 %-2.0 ml i/m 3 times a day during 7 day; |
| b) penicillin of 500,000 units for 3-5 days; | e) ampicillin 1.0 g 6 times a day for 2 weeks. |
| c) sulfanilamides 1.0 g 6 times for 7 days; | |

No 3

Erysipelas belongs to the following group of infections:

- | | |
|----------------------|-----------------------------------|
| a) respiratory; | d) infections of external covers; |
| b) intestinal; | e) zoonosis infection; |
| c) blood infections; | |

No 4

A full-scaled picture of erysipelas includes:

- | | |
|---|---------------------------|
| a) ulcer with seropurulent discharge; | d) blood-filled pustules; |
| b) carbuncle surrounded by jelly-like edemas; | e) dark-red papules. |
| c) erythema, edema, pain; | |

No 5

Patients suffering from erysipelas have the following changes in the blood test:

- | | |
|---|--|
| a) neutrophilic leukocytosis and increased ESR; | d) leukopenia and slowed-down ESR; |
| b) leukopenia with lymphomonocytosis; | e) leukocytosis with lymphomonocytic blood reaction. |
| c) leukocytosis with lymphocytosis; | |

No 6

For primary erysipelas one prescribes:

- | | |
|--|---|
| a) tetracycline of 3.0 g 4 times a days; | d) chloramphenicol 0.5 g 4 times a day; |
| b) bycillin-3 of 1,000,000 units once a week; | e) penicillin 200,000 units 6 times a day for 3 days. |
| c) penicillin 1,000,000 units every 4 hours intramuscularly; | |

No 7

41-year-old veterinary was admitted to the hospital on the 4-th day of disease in severe condition.

On examination: expressed cyanosis of face skin and mucous of lips is present, temperature is 38°C. There are drops of sticky cold sweat on the skin. Intensive edema of face and neck is seen. Percussion in region of this edema produces jelly-like trembling. Right eye is closed because of edema of eyelids. There is erosion with bloody discharging on the right cheek near nose. Around this erosion small pustule are seen, resembling necklace.

A. *What diagnosis is more likely?*

- a) Anthrax;
- b) Glunders;
- c) Skin form of plague;
- d) Erysipeloid;
- e) Erysipelas.

B. *Choose the treatment, need for this patient?*

- a) Streptomycin;
- b) Penicillin;
- c) Ciprofloxacin;
- d) Chloramphenicol succinate
- e) Specific immunoglobulin;

C. *What symptoms are the most typical for this disease?*

- a) Ulcer with elevated infiltrated rim;
- b) Purulent discharging from ulcer;
- c) Satellite vesicles around ulcer ;
- d) Painful ulcer.
- e) Painless edema with jelly-like trembling in percussion;

D. *What laboratory tests may be used for diagnostic of this disease?*

- a) Bacterioscopy;
- b) Serological tests;
- c) Culturing;
- d) Skin allergic test.
- e) Direct immunofluorescent test;

№ 8

36-years-old patient had acute disease with chill, headache, nausea, vomiting, increasing of temperature up to 39°C. Later burning and pain appeared in the right leg. On examination on the 3-d day of disease: patient's condition is of moderate severity, his temperature is 38°C. His right leg is edematous; there is erythema with distinct irregular infiltrated borders, imaging geographic map on the skin of leg. Skin of the right leg is hot on palpation and strained. Right side inguinal lymphadenitis is present.

A. *What diagnosis is more likely?*

- a. Anthrax;
- b) Tularemia;
- c) Phlegmon;
- d) Erysipeloid;
- e) Erysipelas.

B. *Choose the treatment, need for this patient?*

- a. Streptomycin;
- b) Penicillin;
- c) Ciprofloxacin;
- d) Cephalosporins.
- e) Specific immunoglobulin;

C. *What symptoms are the most typical for this*

disease?

- a) Chill, high temperature;
- b) Regional lymphadenitis;
- c) Painless edema of the skin ;
- d) Ulceration of skin with purulent secretion.
- e) Erythema with distinct irregular borders;

D. *What laboratory tests may be used for diagnostic of the diseases?*

- a) Bacterioscopy;
- b) Serological tests;
- c) Culturing;
- d) Blood test.
- e) Direct immunofluorescent test;

№ 9

62 year old women fell ill acutely with the increasing of temperature up to 39,8°C, a chill, intensive headache, dull ache in her body. She complained for increasing acute pain in right inguinal area and edema of the right shin and skin hyperemia with clear borders.

1. *Preliminary diagnosis.*
2. *Inspection plan.*
3. *Treatment plan.*

№ 10

58 year old patient suffers with chronic thrombophlebitis of lower extremity and III-d stage obesity. Fever and skin rash appeared after a trauma of foot. OE: temperature up to 38,8°C, bright red zone of skin, hot zone of hyperemia is separated, boarded by nonequal fire-like edges. The inguinal nodes are middle increased.

1. *Preliminary diagnosis.*
2. *Inspection plan.*
3. *Treatment plan.*

Recommended medicines (To write prescriptions).

- | | |
|------------------|------------------|
| 1. Azytromycin | 7. Loratadin |
| 2. Ceftriaxon | 8. Penicillin |
| 3. Doxycyclin | 9. Rifampicin |
| 4. Gatyfloxacin | 10. Rovamycin |
| 5. Klaritromycin | 11. Streptomycin |
| 6. Klindamycin | |

EXAMINATION OF PATIENT (TRANSACTIONS OF ANSWERS)

Patients first name, second name and patronymic, age, sex			Points
1	Complaints		
	Anamnesis of disease		
	Anamnesis epidemica		
	Anamnesis of life		
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems.		
3	Cardiovascular system examination.		
4	Physical examination of the respiratory system.		
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).		
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.		
7	Basic syndrome.		
8	Intrasymptom differential diagnosis.		
9	Preliminary clinical diagnosis.		
10	Examination plan.		
11	Assessment of laboratory findings and interpretation of instrumental findings.		
12	Determining principles of treatment, tactics of management, the necessary routine of work and rest, diet.		
13	Determining prognosis and preventive measures for the given patient.		

Solving practical skills are assessed with "1", "0,5", "0".

Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

EXAMINATION OF PATIENT FOR THE CASE HISTORY

Patients first name, second name and patronymic, age, sex			Points
1	Complaints		
	Anamnesis of disease		
	Anamnesis epidemica		
	Anamnesis of life		
2	Examination of the patient, information about his general state and its assessment. Skin, mucous membranes, lymphatic and endocrine systems		
3	Cardiovascular system examination.		
4	Physical examination of the respiratory system.		
5	Physical examination of the abdominal cavity (digestive and genitourinary systems).		
6	Physical examination of the musculoskeletal system. Meningeal signs, focal neurological signs.		
7	Basic syndrome.		
8	Intrasyndrome differential diagnosis.		
9	Preliminary clinical diagnosis.		
10	Examination plan.		
11	Assessment of laboratory findings and interpretation of instrumental findings.		
12	Determining principles of treatment, tactics of management, the necessary routine of work and rest, diet.		
13	Determining prognosis and preventive measures for the given patient.		

Solving practical skills are assessed with "1", "0,5", "0".

Total mark: 0-2 points – «2», 3-8 points – «3», 9-11 points – «4», 12-13 points – «5».

NORMAL LABORATORY VALUES

Value	Norm
Total blood count	
Erythrocyte count	male: $4,0-5,0 \times 10^{12}/l$ female: $3,9 - 4,7 \times 10^{12}/l$
Hemoglobin	male: 135-180 g/l female: 120-140 g/l
Color index	0,85- 1,15
Reticulocyte count	0,2-1%
Platelet count	$180,0 - 320,0 \times 10^9/l$
Leucocyte count	$4,0-9,0 \times 10^9/l$
Basophils	$0-0,065 \times 10^9/l$ (0-1%)
Eosinophils	$0,02-0,30 \times 10^9/l$ (0,5-5,0%)
Neutrophils, band	$0,04-0,30 \times 10^9/l$ (1-6 %)
Neutrophils, segmented	$2,0-5,50 \times 10^9/l$ (47-72%)
Monocytes	$0,09-0,60 \times 10^9/l$ (3-11%)
Lymphocytes	$1,2-3,0 \times 10^9/l$ (19-37%)
Erythrocyte sedimentation rate	male: 2 -10 mm/h female: 2-15 mm/h
Hematocrit	male: 40-48% female: 36 - 42%
Blood Biochemical Profile	
Proteins total, serum	65-85 g/l
Albumin	35-50 g/l (52-65%)
Globulin:	23-35 g/l (35-48%)
α 1-globulin	2-4 g/l (4,2-7,2%)
α 2-globulin	5-9 g/l (6,8-12%)
β -globulin	6-11 g/l (9,3-15%)
γ -globulin	11-15 g/l (15-19%)
Albumin/Globulin ratio	1,2-2,0
Bilirubin, serum:	
Total	8,5-20,5 nmol/l
undirect (nonconjugated)	1,7-17,1 nmol/l
direct (conjugated)	0,86-5,1 nmol/l
Lipids, serum (total)	5-7 g/l
Triglycerides	0,59-1,77 mmol/l
Total cholesterol, serum	2,97-8,79 mmol/l
Lipoproteins:	
very low density (pre-beta-lipoproteins)	1,5-2,0 g/l (0,63-0,69 mmol/l)
low density (beta-lipoproteins)	3-4,5 g/l (3,06-3,14 mmol/l)
high density (alpha-lipoproteins)	1,25-6,5 g/l (1,13-1,15 mmol/l)
Chylomicrones	0-0,5 g/l (0-0,1 mmol/l)
Glucose, serum	~3,3-5,5 mmol/l
Glycosylated hemoglobin	4 - 7%
Ferrum, serum	8,53-28,06 mmol /l
Potassium (K^+), plasma	3,8-5,2 mmol/l
Sodium (Na^+), plasma	138-217 mmol/l
Calcium (Ca^{++}), plasma	0,75-2,5 mmol/L
Magnesium (Mg^{2+}), plasma	0,78 - 0,91 mmol/L
Thosphorus inorganic, serum	0,646-1,292 mmol/L

Value	Norm
Chloride (Cl), serum	97-108 mmol/l
Nitrogen residual	14,28 - 25 mmol/l
Urea, serum	3,33 - 8,32 mmol/l
Creatinine, serum	53 -106,1 mmol /l
Creatine, serum	male: 15,25-45,75 mmol /l female: 45,75-76,25 mmol /l
Urine acid	male: 0,12-0,38 mmol /l female: 0,12-0,46 mmol /l
Lactate dehydrogenase	< 7 mmol/(h×l)
Aldolase	0,2-1,2 mmol/h×l
α -amylase	12-32 r/ h×l
Aspartate aminotransferase	0,1-0,45 mmol/h×l
Alanine aminotransferase	0,1-0,68 mmol/h×l
Cholinesterase	160-340 mmol/h×l
Alkaline phosphatase	0,5-1,3 mmol/h×l
Creatine kinase	0,152-0,305 mmol/h×l
Creatine phosphokinase, serum	< 1,2 mmol p/h.l
Lipase	0,4-30 mmol/(h.l)
Immune serum globulin	
IgD	0 - 0,15 g/L
IgG	50-112,5 μ mol/L
IgM	0,6-2,5 μ mol/L
IgA	5,6-28,1 μ mol/L
IgE	0,3-30 nmol/L
Coagulogram	
Prothrombin index	80-100%
Plasma recalcification time	60-120 sec
Thrombotest	IV-V grade
Fibrinogen, factor I	5,9-11,7 mmol /L
Fibrinogen	Negative
Fibrinolytic activity	183-263 minutes
Plasma tolerance to heparin	3-6 (7-11) minutes
Citrate clotting time (Lee-White)	5-10 minutes
Bleeding time (Duke)	< 4 minutes
Clot retraction time	44-65% (retraction index 0,3-0,5)
Acid-base status value	
pH, arterial blood	7,4
pH, venous blood	7,35
Carbone dioxide partial pressure, P_aCO_2	
arterial blood	40 mm Hg
venous blood	46 mm Hg
Oxygen partial pressure, PaO_2 , arterial blood	75 -105 mm Hg
Base excess (deficite) (BE)	$\pm 2,3$ mmol/L
Total blood buffer base (BB)	45-50 mmol/L
Standard bicarbonate (B):	
arterial blood	24 mmol/L
venous blood	26 mmol/L
Active bicarbonate (AB)	27 mmol/L

Value	Norm
Other blood values	
Cortisol, serum	230-750 nmol/l
Osmolality, serum	275-295 mosmol/kg
Parathyroid hormone, serum	42,6±9, 31 pmol/l
Somatotropic hormone	0-118 pmol/l
Thyroid hormone, serum or plasma	128±28 nmol/l
Tyroxine (T4), serum	65-155 nmol/l
Triiodothyronine (T3), serum	1,77 - 2,43 nmol/l
Ferritin, serum	male: 96±7, 63 mkg/l female: 45, 5±4, 58 mkg/l
Qx-seromucoid	12,47-31,75 mmol/l
Thymol test	up to 5 units
Sialic acid	550-790 mg/l
C-reactive protein	negative
Antistreptolysin-O (ASL-O)	250 U
Antistreptohyaluronidase (ASG)	250 U

Value	Norm
Urine values	
Deferent urine density	1,016-1,022
Urine elements count: (by Kakovski- Addise method):	
leukocyte	up to $2 \times 10^6/24h$
erythrocyte	up to $1 \times 10^6/24h$
cylinders	up to $2 \times 10^4/24h$
Urine elements count: (by Nechiporenko):	
leukocyte	up to $4 \times 10^6/l$
erythrocyte	up to $1 \times 10^6/l$
Protein, total	45,0 - 75,0 mg/24h
Potassium	38 - 77 mmol/24h
Calcium	2,5 - 7,5 mmol/24h
Creatinine clearance	male: 97 -137 ml/min female: 88 -128 ml/min
Uric acid	1,48 - 4,43 mmol/24h
Sodium	varies on diet
Oxalate	90 - 445 mmol /l
Chloride	4,1 -13,7 mmol 24g
17-ketosteroids	male: 27,7 -79,7 mmol/24h female 17,4 - 55,4 mmol/24h
17-oxycorticosteroids	0,11 - 0,77 mmol/24h
α -amilase urine	28-160 g/h×l (28-160 u)
Urine creatinine	male: 6,8-17,6 mmol/24h female: 7,1-15,9 mmol/24h

KROK 2 test examples

CHAPTER 1

A 30-year-old patient was delivered to the admission ward of the infectious disease department. The disease had started acutely on the background of normal temperature with the appearance of frequent, liquid, profuse stool without pathological impurities. Diarrhoea was not accompanied by abdominal pain. 12 hours later, there appeared recurrent profuse vomiting. The patient rapidly developed dehydration. What is the most likely diagnosis?

- A. Shigellosis
- B. Cholera
- C. Staphylococcal food toxicoinfection
- D. Salmonellosis
- E. Campylobacteriosis

A nurse of the kindergarten was taken to the hospital with complaints of acute pain in periumbilical region, convulsions of lower limbs, and multiple bile vomiting, frequent watery foul faeces of green colour in huge amounts. At the same time, all the staff in the kindergarten got ill. Two days ago, all of them ate cottage cheese with sour cream. General condition of patients is of moderate severity. Temperature 38,2°C. Heart tones: rhythmic and muted. Heart rate 95/min, arterial pressure: 160 mm/Hg. Abdomen is slightly swollen, painful. Liver +2 cm. What is the most likely diagnosis?

- A. Dysentery
- B. Cholera
- C. Salmonellosis
- D. Food toxic infection

Enterovirus infection

A 34-year-old man on the 3rd day of ceftriaxone treatment for acute otitis (daily dosage - 2 grams) developed diarrhoea occurring 5-6 times per day. Faeces are without mucus or blood admixtures. Temperature is 36.6°C. Gregersen reaction (occult blood in faeces) is negative, Stool culture detected no pathogenic germs. What is the most likely cause of diarrhoea in this case?

- A. Antibiotic-associated diarrhoea
- B. Bacterial overgrowth syndrome
- C. Crohn's disease (regional enteritis)
- D. Ulcerative colitis
- E. Intestinal dysbiosis

28-y.o. man fell seriously ill, he feels chill, has got a fever, body temperature raised up to 38,5°C, paroxysmal pain in the left iliac region, frequent defecation in form of fluid bloody and mucous mass. Abdomen palpation reveals painfulness in its left half, sigmoid colon is spasmed. What is the most probable diagnosis?

- A. Amoebiasis
- B. Colibacillosis
- C. Nonspecific ulcerative colitis
- D. Malignant tumour of large intestine
- E. Acute dysentery

29 y.o. patient was hospitalized on 10th day of disease. Onset was gradual with intensive headache, loss of appetite, constipation, poor sleep and fever to 39°C.

OE: severe condition, Ps - 80 /min, BP - 100/60 mm. Hg. On abdominal wall - there are several rose spots. Spleen and liver enlarged. What is the diagnosis?

- A. Typhoid fever
- B. Leptospirosis
- C. Influenza
- D. Iersyniosis
- E. Lause - borne typhus

A 1,5-year-old child fell ill acutely with high temperature 38°C, headache, fatigue. The temperature declined on the fifth day, muscular pain in the right leg occurred in the morning, there were no movements and tendon reflexes, sensitivity was reserved. What is the initial diagnosis?

- A. Viral encephalitis
- B. Polyarthropathy
- C. Poliomyelitis
- D. Osteomyelitis
- E. Hip joint arthritis

In an urban settlement situated on the riverbank, an outbreak of hepatitis A was registered. The disease might have water origin. This assumption can be confirmed by growth of the following values of water quality:

- A. Escherichia coli index
- B. Number of coli-phages
- C. Oxidability
- D. Presence of benign leptospirosis pathogen
- E. Index of faecal coli-forms

A 12-year-old boy presents with nausea, frequent repeated vomiting that first occurred after eating canned vegetables. Objectively: the patient has dry mucous membranes, muscular hypotonia, anisocoria, mydriasis, dysphagia and dysarthria. What is the most likely diagnosis?

- A. Shigellosis
- B. Salmonellosis
- C. Cholera
- D. Botulism
- E. Yersiniosis

Half an hour after a 30-year-old woman had had some custard cake, she experienced lancinating abdominal pain, nausea, vomiting. Objectively: body temperature - 36,0°C, pale skin, breathing rate - 20/min, Ps- 100/min. AP- 95/65 mm Hg, loud cardiac sounds. Dry tongue. Abdomen was painful in its epigastric part; there were no signs of peritoneum irritation. What is the first measure to be taken?

- A. Gastric lavage
- B. Administration of an enterosorbent
- C. Injection of Cerucal
- D. Intravenous rehydration
- E. Antibiotic therapy

A 28-year-old woman complains of nausea, stomachache, pain in her tongue, and liquid feces. Three days ago she ate poorly salted pike caviar. Objectively her skin is pale, the tongue looks "lacquered" (bald tongue). Pulse is 1000/min., with muffled heart sounds and systolic murmur over the cardiac apex. Blood pressure is 95/50 mm Hg. The liver is enlarged by 3 sm. Hemogram shows anaemia,

eosinophils - 18%. oval helminth eggs were detected in faeces. Make the provisional diagnosis.

- A. Diphylobotriosis
- B. Teniasis
- C. Ascariasis
- D. Trichinosis
- E. Taeniarinchosis

A patient complains of frequent, bulky, frothy stools with greenish mucus, cramping pain in the umbilical region, abdominal murmur, and body temperature at the rate of 39°C. The patient associates the disease with consumption of soft-boiled eggs. What is the most likely pathogen?

- A. Yersinia
- B. Salmonella
- C. Shigella
- D. Enteropathogenic E. coli
- E. Vibrio cholerae El Tor

3 y.o. girl was not vaccinated because of deny of her parents. Fell ill acutely: fever to 38°C, mucous discharge from nose, mild cough. In three days temperature normalized. Next morning the girl complaint on pain in right neck and was unable to stand on it. On examination in hospital there was decreased muscular tonus found, absence of tendinal reflexes on right leg was found, sensitivity was present. What is the diagnosis?

- A. Polymyelitis
- B. Enteroviral infection
- C. Diphtheric polyneuropathia
- D. Encephalitis
- E. Acute infection myelitis

10 hrs after eating canned mushrooms 27 y.o. patient reported diplopia, bilateral ptosis, vomiting disturbance, superficial respiration 40/min., paresis of intestines. What is a primary necessary medical manipulation?

- A. Intubation of trachea for respiratory support
- B. Intravenous desintoxication therapy
- C. Gastric and intestinal lavage
- D. Antibotulinic serum administration
- E. Glucocorticoids administration

In 10 hours after eating canned mushrooms a 27-year-old patient has developed diplopia, bilateral ptosis, disrupted swallowing, shallow breathing with respiratory rate 40/min., muscle weakness, enteroparesis. What measure should be taken first?

- A. Gastrointestinal lavage
- B. Intravenous detoxication therapy
- C. Introduction of antitubulinic serum
- D. Introduction of glucocorticosteroids
- E. Intubation of the trachea for artificial respiration

An 8-year-old boy fell ill acutely: he presents with fever, weakness, headache, abdominal pain, recurrent vomiting, then diarrhoea and tenesmus. Stools occur 12 times daily, are scanty, contain a lot of mucus, pus, streaks of blood. His sigmoid gut is tender and hardened. What is your diagnosis?

- A. Salmonellosis
- B. Cholera
- C. Dysentery

- D. Staphylococcal gastroenteritis
- E. Escherichiosis

A group of 5 had been resting in a forest, 1 they were drinking alcohol and eating canned mushrooms and cured fish. The next day two of them were hospitalized with disturbed vision, swallowing and respiration; the third one presented with acute general weakness and dry mouth. The remaining two were healthy. A tick was detected on the skin of one of the healthy group members. What is the most likely diagnosis?

- A. Botulism
- B. Alcohol poisoning
- C. Tick-borne encephalitis
- D. Mushroom poisoning
- E. Lyme borreliosis

An 8-year-old child was hospitalized for fever up to 39,8°C, inertness, moderate headache, vomiting. Examination revealed meningeal symptoms. Lumbar puncture was performed. The obtained fluid had raised opening pressure, it was transparent, with the cell count of 450 cells per 1 mL (mainly lymphocytes - 90%), glucose level of 2,6 mmol/L. What causative agent might have caused the disease in the child?

- A. Meningococcus
- B. Enterovirus
- C. Koch's bacillus
- D. Staphylococcus
- E. Pneumococcus

A 37-year-old woman complaints of headaches, nausea, vomiting, spasms. The onset of the disease occurred the day before due to her overexposure to cold. Objectively: fever up to 40°C, somnolence, rigid neck; Kernig's symptom is positive on both sides; general hyperesthesia. Blood test: leukocytosis, increased ESR. Cerebrospinal fluid is turbid, yellow-tinted. What changes of the cerebrospinal fluid are most likely?

- A. Neutrophilic pleocytosis
- B. Blood in cerebrospinal fluid
- C. Albuminocytological dissociation
- D. Lymphocytic pleocytosis
- E. Xanthochromia in the cerebrospinal fluid.

A female patient has been suffering from pain in the right subcostal area, bitter taste in the mouth, periodical bile vomiting for a month. The patient put off 12 kg. Body temperature in the evening is 37,6°C. Sonography revealed that bile bladder was 5,5 × 2,7 cm large, its wall - 0,4 cm, choledochus - 0,8 cm in diameter. Anterior liver segment contains a roundish hypochoic formation up to 5 cm in diameter and another two up to 1,5 cm each, walls of these formations are up to 0,3 cm thick. What is the most likely diagnosis?

- A. Alveolar echinococcus of liver
- B. Liver cancer
- C. Liver abscess
- D. Cystous liver cancer
- E. Paravesical liver abscesses

A 50-year-old locksmith was diagnosed with typhoid fever. The patient lives in a separate apartment with all facilities. Apart of him, there are also 2 adults in his family. What actions should be taken about persons

communicating with the patient?

- A. Antibiotic prophylaxis
- B. Isolation
- C. Dispensary surveillance
- D. Bacteriological study
- E. Vaccination

A 12-year-old girl complains about abrupt weakness, nausea, dizziness, vision impairment. The day before she ate homemade stockfish, beef. Examination revealed skin pallor, a scratch on the left knee, dryness of mucous membranes of oral pharynx, bilateral ptosis, mydriatic pupils. The girl is unable to read a simple text (mist over the eyes). What therapy would be the most adequate in this case?

- A. Parenteral disintoxication
- B. Parenteral introduction of antibiotics
- C. Gastric lavage
- D. Parenteral introduction of polyvalent antitoxin serum
- E. Parenteral introduction of antitetanus serum

The disease began acutely. The frequent watery stool developed 6 hours ago. The body's temperature is normal. Then the vomiting was joined. On examination: his voice is hoarse; eyes are deeply sunken in the orbits. The pulse is frequent. Blood pressure is low. There is no urine. What is the preliminary diagnosis?

- A. Toxic food-borne infection
- B. Salmonellosis
- C. Dysentery
- D. Typhoid fever
- E. Cholera

A 10-month-old boy has been ill for 5 days after consumption of unboiled milk. Body temperature is 38 - 39°C, there is vomiting, liquid stool. The child is pale and inert. His tongue is covered with white deposition. Heart sounds are muffled. Abdomen is swollen, there is borborygmus in the region of umbilicus, liver is enlarged by 3 cm. Stool is liquid, dark-green, with admixtures of mucus, 5 times a day. What is the most probable diagnosis?

- A. Salmonellosis
- B. Staphylococcal enteric infection
- C. Escherichiosis
- D. Acute shigellosis
- E. Rotaviral infection

Basing upon the data of laboratory assessment of sanitary state of soil in a certain territory, the soil was found to be low contaminated according to the sanitary indicative value; contaminated according to the coli titre; low-contaminated according to the anaerobe titre (*C. perfringens*). This is indicative of:

- A. Insufficient intensity of soil humification
- B. Old faecal contamination
- C. Constant entry of organic protein contaminations
- D. Fresh faecal contamination
- E. Insufficient insolation and aeration of soil

A 32-year-old patient lives in an area endemic for echinococcosis. In the last 6 months, he reports of pain in the right subcostal area, fever. He is suspected to

have liver echinococcosis. What study would be the most informative in this case?

- A. Survey radiography of abdominal cavity
- B. USI
- C. Biochemical laboratory examination
- D. Angiography
- E. Liver scanning

A 28 year old patient was admitted to the clinic with complaints of the temperature rise up to 39,0°C, headache, weakness, constipation on the 9th day of the disease. On examination: single roseolas on the skin of the abdomen are present. The pulse rate is 78 bpm. The liver is enlarged by 2 cm. What is the most probable diagnosis?

- A. Leptospirosis
- B. Typhoid fever
- C. Brucellosis
- D. Sepsis
- E. Malaria

In the morning, a patient had nausea, abdominal discomfort, single vomiting, and dry mouth. In the evening, the patient presented with the increasing general weakness, double vision, difficult swallowing of solid food. Objectively: ptosis, mydriasis, anisocoria, absence of gag and pharyngeal reflex, dry mucous membranes. The previous evening the patient had dinner with canned food and alcohol. What is the presumptive diagnosis?

- A. Food toxicoinfection
- B. Intoxication with unknown poison
- C. Acute ischemic stroke
- D. Poliomyelitis
- E. Botulism

A 33-year-old male patient developed a condition that had a stormy clinical course: chills, fever up to 39°C, vomiting, epigastric pain, diarrhoea with watery smelly faeces. 6 hours before, he ate a raw egg, fried potatoes with stewed meat, and drank some juice. What pathogen is likely to have caused this condition?

- A. *Colibacillus*
- B. *Campylobacter*
- C. *Salmonella*
- D. *Shigella*
- E. *Vibrio cholera*

A 37-year-old farmer complains about general weakness, spastic pain in the lower parts of his abdomen, mainly in the left iliac area, frequent defecations up to 18 times a day, faeces contain admixtures of mucus and blood. The illness began abruptly 3 days ago with chill, fever, and headache. General condition is moderately severe, body temperature is 37,8°C. Sigmoid colon is spasmed and painful. What is the most probable diagnosis?

- A. Amoebiasis
- B. Nonspecific ulcerative colitis
- C. Dysentery
- D. Yersiniosis
- E. Salmonellosis

A worker diagnosed with "acute dysentery" was sent to the infectious department by a doctor of aid post. What

document should be used for registration of this disease?

- A. Statistic coupon for registration of final diagnoses
- B. Outpatient's card
- C. Inpatient's card
- D. Urgent report on infectious disease
- E. Statistic card of the patient who left in-patient hospital

A 30-year-old patient was hospitalized with a diagnosis: intestinal obstruction. During the surgery, it was revealed that the obstruction of the small intestine had been caused by a mass of helminths. What helminths are these?

- A. Guinea worms
- B. Filarial worms
- C. Ascarids
- D. Cysticercoids
- E. Pinworms

A patient is staying in the hospital with the diagnosis of abdominal typhus. During the 3-d week from the beginning of the disease, the patient stopped keeping diet and confinement to bed. As a result the body temperature and rapid pulse decreased and melena appeared. What kind of complications should we think about first of all?

- A. Thrombophlebitis
- B. Meningitis
- C. Nephroso-nephritis
- D. Intestinal haemorrhage
- E. Hepatitis

The 25-year-old patient was admitted on the 1st day of the disease with complaints of double vision in the eyes, difficult respiration. The day before the patient ate homemade mushrooms. On objective examination: paleness, widened pupils, disorder of swallowing, bradycardia, constipation are marked. What is the diagnosis?

- A. Yersiniosis
- B. Botulism
- C. Leptospirosis
- D. Salmonellosis, gastrointestinal form
- E. Lambliasis

A man in grave condition was delivered to the admission ward of a hospital on the 2nd day of illness. Examination revealed body temperature of 36,1°C, sharpened features of face, dry skin that makes a fold, aphonia, convulsive twitching of some muscle groups. Acrocyanosis is present. Heart sounds are muffled, Ps is 102 bpm, AP is 50/20 mm Hg. Abdomen is soft, drawn-in, and painless. Anuria is present. Stool is liquid in form of rice water. What is the most probable diagnosis?

- A. Acute dysentery
- B. Salmonellosis
- C. Cholera
- D. Escherichiosis
- E. Intestinal amoebiasis

A 30-year-old patient complains of paroxysmal abdominal pain, frequent liquid stools up to 10 times a

day. Throughout the first 3 day, she had a fever, since the 2nd day of disease there were scant liquid stools mixed with mucus. On palpation: tenderness of all colon segments. Sigmoid colon was found spastic. What is your provisional diagnosis?

- A. Intestinal amoebiasis
- B. Acute dysentery
- C. Salmonellosis
- D. Cholera
- E. Balantidiasis

A 4-y.o. child attends the kindergarten. Complaints of poor appetite, fatigue. Objective examination: skin and mucous membrane are pale, child is asthenic. In the hemogram: hypochromatic anaemia 1st, leucomoid reaction of the eosinophile type. What pathology must be excluded first of all?

- A. Lymphoproliferative process
- B. Hypoplastic anemia
- C. Duodenal ulcer
- D. Helminthic invasion
- E. Atrophic gastritis

A 28-y.o. male patient was admitted to the hospital because of high temperature 39°C, headache, generalized fatigue, constipation, sleep disorder for 9 days. There are sporadic roseolas on the abdomen, pulse - 78 bpm, liver is enlarged for 2 cm. What is the most probable diagnosis?

- A. Typhus
- B. Sepsis
- C. Brucellosis
- D. Abdominal typhoid
- E. Leptospirosis

An outbreak of food poisoning was recorded in an urban settlement. The illness was diagnosed as botulism on the grounds of clinical presentations. What foodstuffs should be chosen for analysis in the first place in order to confirm the diagnosis?

- A. Tinned food
- B. Potatoes
- C. Pasteurized milk
- D. Boiled meat
- E. Cabbage

Ten hours before initial observation patient had frequent faeces and vomiting. Faecal and vomiting masses looked like rice-water. Nausea and abdominal pain were not observed. Hiccup and convulsions of lower limbs, temperature 35, 4°C, hoarse voice, greyish wry face, acrocyanosis were observed. Respiratory rate 40/min, threadlike pulse 120/min, blood pressure 40/0 mm/Hg, abdomen is drawn. What treatment measures should be taken first of all?

- A. Antibiotic therapy
- B. Cardiac glycosides
- C. Disintoxicational therapy
- D. Antibotulinic serum injection
- E. Intravenous rehydration

A 6-year-old child complains of frequent liquid stool and vomiting. On the 2nd day of disease the child presented with inertness, temperature rise up to 38,2°C, Ps - 150 bpm, scaphoid abdomen, palpatory painful

sigmoid colon, defecation 10 times a day with liquid, scarce stool with mucus and streaks of green. What is a provisional diagnosis?

- A. Salmonellosis
- B. Escherichiosis
- C. Intestinal amoebiasis
- D. Shigellosis
- E. Yersiniosis

A 3-year-old child has been taken to a paediatrician. He has no recent history of any diseases. Objective examination revealed no pathology of the internal organs. The child needs the routine immunization against the following disease:

- A. Diphtheria and tetanus
- B. Measles, rubella, parotitis
- C. Pertussis
- D. Poliomyelitis
- E. Type B hepatitis

A child is 9 months old. The patient's body temperature is 36,7°C, the skin is pale, humid, there is pain in leg muscles. There is no extremities mobility, sensitivity is present. The child has been diagnosed with poliomyelitis. The causative agent of this disease relates to the following family:

- A. Paramyxovirus
- B. Togavirus
- C. Adenovirus
- D. Rotavirus
- E. Picornavirus

A 4-month-old boy has been undergoing inpatient treatment pneumocystic pneumonia for 4 weeks. The diagnosis has been made based on clinical signs, typical X-ray presentation, presence of severe hypoxemia, positive dynamics caused by intravenous introduction of Biseptol (Co-trimoxazole). Anamnesis states that enzyme-linked immuno sorbent assay (ELISA) detected antibodies to HIV in the umbilical blood. Polymerase chain reaction (PCR) was performed on the child at ages of 1 month and 3 month, and proviral DNA was detected in the child's blood. Viral load and number of CD4+ - lymphocytes was not measured. Make the diagnosis:

- A. HIV/AIDS
- B. Infectious mononucleosis.
- C. Tuberculosis.
- D. Pneumonia.
- E. Adenovirus infection.

CHAPTER 2

An infant is 2.5 months old. The onset of the disease was gradual, the child had normal body temperature but presented with slight cough. Within a week the cough intensified, especially at night; on the 12th day the child developed cough fits occurring up to 20 times per day and followed by vomiting. There was one instance of respiratory arrest. Make the diagnosis:

- A. Pertussis
- B. Respiratory syncytial infection
- C. Congenital stridor
- D. Adenovirus infection
- E. Parainfluenza

A 26-year-old male patient complains of piercing pain during breathing, cough, dyspnoea. Objectively: t° - 37,3°C, respiration rate - 19/min, heart rate - Ps -

92/min; AP - 120/80 mm Hg. Vesicular respiration. In the inferolateral parts of chest auscultation in both inspiration and expiration phase revealed noise that was getting stronger at phonendoscope pressing and can be still heard after cough. ECG showed no pathological changes. What is the most likely diagnosis?

Intercostal neuralgia

Subcutaneous emphysema

Acute pleuritis

Spontaneous pneumothorax

Pericarditis sicca

A 32-year-old patient has developed an acute condition after hypothermia: temperature - 40°C, cough with 200 ml of sputum per day. The sputum is purulent, foul-smelling. To the right of the lower lobe the mixed moist rales can be auscultated. Blood test results: WBCs - $18,0 \times 10^9/l$, ESR - 45 mm/h. Radiographically: in the lower lobe of the right lung there is a thick-walled cavity up to 6 cm in diameter with a high horizontal level. What is the most likely diagnosis?

- A. Lung abscess
- B. Fibro-cavernous pulmonary tuberculosis
- C. Lung cyst
- D. Decomposing lung carcinoma
- E. Infiltrative pulmonary tuberculosis

A child undergoes in-patient treatment for acute staphylococcal destruction of the right lung. Unexpectedly he developed acute chest pain on the right, dyspnoea, and cyanosis. The right side of chest lags behind in the respiratory act. Percussion reveals dullness in the lower parts on the right, bandbox resonance in the upper parts. Borders of the relative cardiac dullness are shifted to the left. What complication has most likely developed?

- A. Pleural empyema
- B. Right-sided pyopneumothorax
- C. Spontaneous pneumothorax
- D. Exudative pleuritis
- E. Right lung abscess

A 42-year-old male patient has been delivered to a hospital in a grave condition with dyspnoea, cough with expectoration of purulent sputum, fever up to 39,5°C. The first symptoms appeared 3 weeks ago. Two weeks ago, a local therapist diagnosed him with acute right-sided pneumonia. Over the last 3 days, the patient's condition deteriorated: there was a progress of dyspnoea, weakness, lack of appetite. Chest radiography confirms a rounded shadow in the lower lobe of the right lung with a horizontal fluid level, the right sinus is not clearly visualized. What is the most likely diagnosis?

- A. Acute pleuropneumonia
- B. Right pulmonary empyema
- C. Atelectasis of the right lung
- D. Abscess of the right lung
- E. Pleural effusion

A 26-year-old male patient complains of pain in the right knee, which is getting worse in the morning. Two weeks before, he consulted an urologist about prostatitis. Objectively: conjunctivitis is present. There

is also periarticular oedema of the knee joint, redness of the overlying skin. Rheumatoid factor was not detected. Until further diagnosis is specified, it would be reasonable to start treatment with the following antibiotic:

- A. Cephalosporins
- B. Penicillins
- C. Tetracyclines
- D. Aminoglycosides
- E. Lincosamides

A 10-year-old girl was admitted to a hospital with carditis presentations. It is known from the anamnesis that two weeks ago she had exacerbation of chronic tonsillitis. What is the most likely etiological factor in this case?

- A. Staphylococcus
- B. Pneumococcus
- C. Klebsiella
- D. Streptococcus
- E. Proteus

Three weeks after acute angina the patient is still weak, inert, subfebrile, his retromaxillary lymph nodes are enlarged. Tonsils are flabby, stick together with arches, there are purulent plugs in lacunae. What is the most probable diagnosis?

- A. Chronic tonsillitis
- B. Chronic pharyngitis
- C. Acute lacunar tonsillitis
- D. Paratonsillitis
- E. Tonsillar tumour

A 35-year-old patient's wound with suppurative focus was surgically cleaned. On the 8th day after surgery the wound cleared from purpuro-necrotic content and granulations appeared. However, against the background of antibacterial therapy the body temperature keeps at 38,5 - 39,5°C. There are chills, excessive sweating, euphoria, heart rate is 120/min. What complication of local pyoinflammatory process can it be?

- A. Sepsis.
- B. Trombophlebitis.
- C. Purulent absorption fever.
- D. Meningitis.
- E. Pneumonia.

A 3-m.o. child fell seriously ill, body temperature raised up to 37,8°C, there is semicough. On the 3-rd day the cough grew worse, dyspnoea appeared. On percussion: tympanic sound above lungs, on auscultation: many fine moist and wheezing rales during expiration. What is the most probable diagnosis?

- A. Acute respiratory viral infection, bronchopneumonia
- B. Acute respiratory viral infection, bronchitis
- C. Acute respiratory viral infection, bronchitis with asthmatic component
- D. Acute respiratory viral infection, bronchiolitis
- E. Acute respiratory viral infection, focal pneumonia

A 22-year-old patient is a clerk. His working day runs in a conditioned room. In summer, he was taken by an acute disease with the following symptoms: fever,

dyspnoea, dry cough, pleural pain, myalgia, arthralgia. Objectively: moist rales on the right, pleural friction rub. X-ray picture showed infiltration of the inferior lobe. In blood: WBC - $11 \times 10^9/l$, stab neutrophils - 6%, segmented neutrophils - 70%, lymphocytes - 8%, ESR - 42 mm/h. What is the etiological factor of pneumonia?

- A. Mycoplasma
- B. Streptococcus
- C. Staphylococcus
- D. Legionella
- E. Pneumococcus

A 9-month-old child presents with fever, cough, dyspnea. The symptoms appeared 5 days after a contact with a person suffering from URTI. Objectively: the child is in grave condition. Temperature of 38°C, cyanosis of nasolabial triangle is present. Respiration rate - 54/min., nasal flaring during breathing. There was percussion dullness on the right below the scapula angle, and tympanic sound over the rest of lungs. Auscultation revealed bilateral fine moist crackles predominating on the right. What is the most likely diagnosis?

- A. Acute pneumonia.
- B. Acute laryngotracheitis.
- C. Acute bronchitis.
- D. URTI.
- E. Acute bronchiolitis.

A 3-month-old girl presents with rhinitis, dyspnoea, dry cough. These manifestations have been observed for two days. Objectively: the child has pale skin, acrocyanosis, shallow respiration at the rate of 80/min. Percussion reveals handbox resonance over the whole surface of lungs, massive fine rales. What is the most likely diagnosis?

- A. Pneumonia
- B. Acute bronchiolitis
- C. Mucoviscidosis
- D. Foreign body of the airway
- E. Acute bronchitis

A 56-year-old woman has an acute onset of fever up to 39°C with chills, cough, and pain on respiration in the right side of her chest. On physical examination: HR - 90/min, BP - 95/60 mm Hg, RR - 26/min. There is dullness over the right lung on percussion. On X-ray: infiltrate in the right middle lobe of the lung. What is the diagnosis?

- A. Community-acquired bronchopneumonia
- B. Community-acquired lobar pneumonia of moderate severity
- C. Acute pleuritis
- D. Acute lung abscess
- E. Nosocomial lobar pneumonia

On the 4th day after recovering from a cold a patient was hospitalized with complaints of solitary spittings of mucoid sputum. On the 2nd day, there was a single discharge of about 250 ml of purulent blood-streaked sputum. Objectively: the patient's condition is moderately severe. Respiratory rate - 28-30/min, Ps- 96 bpm, AP- 110/70 mm Hg. Respiration above the left lung is vesicular, weak above the right lung. There are moist rales of different types above the lower lobe and

amphoric breath near the angle of scapula. What is the most likely diagnosis?

- A. Exudative pleuritis
- B. Acute pulmonary abscess
- C. Acute focal pneumonia
- D. Pleural empyema
- E. Pyopneumothorax

4 days ago, a 32-year-old patient caught a cold: he presented with sore throat, fatigue. The next morning he felt worse, developed dry cough, body temperature rose up to 38,2°C, there appeared muco-purulent expectoration. Percussion revealed vesicular resonance over lungs; vesicular breathing weakened below the angle of the right scapula, fine sonorous and sibilant wheezes. What is the most likely diagnosis?

- A. Bronchial asthma
- B. Acute bronchitis
- C. Pulmonary carcinoma
- D. Pulmonary gangrene
- E. Focal right-sided pneumonia

7 y.o. child was hospitalized with complaints on fever up to 39,8°C, vomiting, moderate headache. On examination meningeal signs are found. LP was performed. Spinal liquor come out by pressure, transparent, cytosis - 450 /1 mkl (lymphocytes - 90%), glucose - 2,6 mmol/l. What pathogen can be causative agent of the disease?

- A. Enterovirus
- B. Meningococcus
- C. Pneumococcus
- D Staphylococcus
- E. Mycobacterium tuberculosis

The 7-m.o. infant is suffering from acute pneumonia which was complicated by cardiovascular insufficiency and respiratory failure of II degree. The accompanied diagnosis is malnutrition of II degree. Choose the best variant of therapy:

- A. Ampiox and Amicacin
- B. Macropen and Penicillin
- C. Penicillin and Ampiox
- D. Gentamycin and Macropen
- E. Ampiox and Polymixin

A 40-year-old patient complains of fever up to 39°C, cough with sputum and blood admixtures, dyspnoea, weakness, herpetic rash on the lips. Objectively: respiration rate - 32/min. Under the shoulder blade on the right the increased vocal fremitus and dullness of percussion sound were revealed. Auscultation revealed bronchial respiration. Blood count: WBCs - $14 \times 10^9/l$, ESR - 35 mm/h. What is the provisional diagnosis?

- A. Focal right-sided pneumonia
- B. Cavernous tuberculosis of the right lung
- C. Lung cancer
- D. Right-sided croupous pneumonia
- E. Exudative pleuritic

A 3-year-old child has been suffering from fever, cough, coryza, conjunctivitis for 4 days. He has been taking sulfadimethoxine. Today it has fever up to 39°C and maculopapular rash on its face. Except of rash, the child's skin has no changes. What is your diagnosis?

- A. Allergic rash

- B. Rubella
- C. Measles
- D. Scarlet fever
- E. Pseudotuberculosis

Patient 24 y.o. complains on general weakness, dizziness, fever to 37,5°C, sore throat, edema of neck and local lymphadenopathy. OE: oropharyngeal mucous membrane edematous and cyanotic, tonsils are enlarged, covered by white membranes spreading to other mucosal layer and difficult to remove. What is a main mechanism of the disease development?

- A. Action of a bacterial exotoxin
- B. Allergic component
- C. Dysbiotic changes
- D. Metabolism disturbance
- E. Action of a bacterial endotoxin

An 8-year-old child complains of fever up to 38,8°C, throat pain when swallowing, skin rash. Objectively: lacunar tonsillitis, circumscribed hyperaemia and enanthema of soft palate, pinpoint-sized skin rash, mostly in the folds and on the flexor surfaces of the extremities, pale nasolabial triangle. Which antibiotic should be administered in the first place?

- A. Penicillin
- B. Gentamicin
- C. Ampicillin
- D. Lincomycin
- E. Tetracycline

On the 2nd day of disease a 27-year-old patient complains of unbearable headache, repeated vomiting. Objectively: the patient is in a grave condition. He is conscious but adynamic. Lies in a forced position with his head thrown back. There is no skin rash. Nuchal muscles are evidently rigid; there are Kernig's and Brudzinski's signs. t° - 39,5°C, Ps - 120/min, AP - 130/80 mm Hg. The leading syndrome of this disease is caused by:

- A. Liquor hypotension
- B. Liquor hypertension
- C. Affection of the cranial nerve nuclei
- D. Haemorrhages in the adrenal glands
- E. Hyperthermia

A 3-year-old boy fell ill abruptly: fever up to 39°C, weakness, vomiting. Haemorrhagic rash of various size appeared on his lower limbs in 5 hours. Meningococemia with infective - toxic shock of the I degree was diagnosed. What medicines should be administered?

- A. Penicillin and prednisone
- B. Penicillin and immunoglobulin
- C. Chloramphenicol succinate and prednisone
- D. Chloramphenicol succinate and interferon
- E. Ampicillin and immunoglobulin

A 20-year-old patient complains of severe headache, double vision, weakness, fever, irritability. Objectively: body temperature is at the rate of 38,1°C, the patient is reluctant to contact, sensitive to stimuli. There is ptosis of the left eyelid, exotropia, anisocoria $S > D$, pronounced meningeal syndrome. On lumbar puncture the cerebrospinal fluid flowed out under a pressure of 300 mm Hg, the fluid is clear, slightly opalescent. 24

hours later, there appeared the fibrinous film. Protein - 1,4 g/l, lymphocytes – 600,3 per mm³, sugar - 0,3 mmol/l. What is the provisional diagnosis?

- A. Meningococcal meningitis
- B. Lymphocytic Armstrong's meningitis
- C. Tuberculous meningitis
- D. Syphilitic meningitis
- E. Mumps meningitis

3 weeks ago a patient was ill with tonsillitis. Clinical examination reveals oedema, arterial hypertension, haematuria, proteinuria (1,8 g/per day), granular and erythrocytic casts. What is the preliminary diagnosis?

- A. Cystitis
- B. Pyelonephritis
- C. Glomerulonephritis
- D. Intestinal nephritis
- E. Renal amyloidosis

A 19-y.o. girl admitted to the hospital complained of pain in the knee and fever of 38,6°C. She is ill for 2 weeks after acute tonsillitis. On exam, hyperaemia and swelling of both knees, temperature is 37,4°C, HR - 94/min, BP - 120/80 mm Hg, and heart border is displaced to the left; S1 is weak, systolic murmur is present. Total blood count shows the following: Hb - 120 g/L, WBC - 9, 8 × 10⁹/L, ESR of 30 mm/L. ECG findings: the rhythm is regular, PQ = 0,24 sec. What is a causative agent of the disease?

- A. Viral-bacterial association
- B. Beta-haemolytic streptococci
- C. Autoimmune disorder
- D. Staphylococci
- E. Rickettsia

A patient complains of intense pressing pain in the pharynx, mainly to the right, impossibility to swallow even liquid food. The illness started 5 days ago. The patient's condition is grave. Body temperature - 38,9°C, speech is difficult, voice is constrained, difficulties in opening the mouth. Submaxillary glands to the right are painful, enlarged. What is the most probable diagnosis?

- A. Diphtheria
- B. Pharyngeal tumour
- C. Vincent's disease
- D. Peritonsillar abscess
- E. Phlegmonous tonsillitis

A patient complained about general weakness, fever, painful rash on his trunk skin. He has been suffering from this for 3 days. Objectively: lateral surface of trunk on the left is hyperaemic and oedematous; there are some groups of vesicles with serous and haemorrhagic contents. What is the most probable diagnosis?

- A. Contact dermatitis simplex
- B. Herpes zoster
- C. Contact allergic dermatitis
- D. Microbial eczema
- E. Herpetiform Dühring's dermatosis

An infant aged 1 year on the third day of common cold at night developed inspiratory stridor, hoarse voice and barking cough. Physical examination revealed

suprasternal and intercostal chest retractions. There is a bluish skin discoloration moistly seen over the upper lip. The respiratory rate is 52 per min and pulse - 122 bpm. The body temperature is 37,5°C. What disease does the infant have?

- A. Acute laryngitis
- B. Bronchopneumonia without complications
- C. Acute infectious croup due to viral laryngotracheitis
- D. Acute bronchiolitis with respiratory distress
- E. Acute epiglottitis

A 38-y.o. patient has been treated in a hospital. A fever of 39°C, chest pain which is worsened by breathing, cough, brownish sputum appeared on the 7-th day of the treatment. Chest X- ray shows left lower lobe infiltrate. Which of the following is the treatment of choice for this patient?

- A. Penicillin
- B. Erythromycin
- C. Tetracycline
- D. Cephalosporins of the III generation
- E. Streptomycin

A 43-y.o. woman complains of shooting heart pain, dyspnoea, irregularities in the heart activity, progressive fatigue during 3 weeks. She had acute respiratory disease a month ago. On examination: AP - 120/80 mm Hg, heart rate 98 bpm, heart borders +1,5 cm left side, sounds are muffled, soft systolic murmur at apex and Botkin's area; sporadic extrasystoles. Liver is not palpated, there are no oedema. Blood test: WBC - 6, 7 × 10⁹/L, sedimentation rate - 21 mm/hour. What is the most probable diagnosis?

- A. Climacteric myocardiodystrophy
- B. Acute myocarditis
- C. Ischemic heart disease, angina pectoris
- D. Rheumatism, mitral insufficiency
- E. Hypertrophic cardiomyopathy

A patient has chronic heart failure of the II stage. He takes furosemide regularly three times a week. He had developed bronchopneumonia and had been administered combined pharmacotherapy. On the fifth day of therapy, the patient complained of hearing impairment. What drug coadministered with furosemide might have caused the hearing loss?

- A. Linex
- B. Nystatin
- C. Tavegil
- D. Gentamicin
- E. Mucaltin

A 5-year-old child developed an acute disease starting from body temperature rise up to 38,5°C, running nose, cough and conjunctivitis. On the 4th day, the child presented with maculo-papular rash on face. Body temperature rose again up to 39,2°C. Over the next few days, the rash spread over the whole body and extremities. Mucous membrane of palate was hyperaemic; there was whitish deposition on cheek mucous membrane next to molars. What is your provisional diagnosis?

- A. Acute viral respiratory infection
- B. Yersinia

- C. Measles
- D. Enterovirus diseases
- E. Rubella

A 7-year-old female child has developed an acute condition. She complains of a headache, two onsets of vomiting. Objectively: deferred reactions, body temperature - 39, 3°C, pronounced hyperesthesia, nuchal rigidity, positive superior and inferior Brudzinski's signs, symmetric Kernig's sign. What is the provisional diagnosis?

- A. Food toxicoinfection
- B. Meningitis
- C. Craniocerebral trauma
- D. Toxic encephalopathy
- E. Encephalitis

A 3-year-old child fell acutely ill, body temperature rose up to 39,5°C, the child became inert, there appeared recurrent vomiting, headache. Examination revealed positive meningeal symptoms, after this lumbar puncture was performed. Spinal fluid is turbid, runs out under pressure, protein concentration is 1,8 g/l; Pandy reaction is +++, sugar concentration is 2,2 millimole/l, chloride concentration - 123 millimole/l, cytosis is 2, 35×10⁹ (80% of neutrophils, 20% of lymphocytes). What is the most probable diagnosis?

- A. Serous viral meningitis
- B. Purulent meningitis
- C. Serous tuberculous meningitis
- D. Subarachnoid haemorrhage
- E. Brain tumour

A 1,5-year-old child was taken by an acute disease: body temperature up to 39°C, frequent vomiting up to 5 times. Nervous system tests revealed positive Kernig's and Brudzinski's signs. The given symptoms relate to:

- A. Meningeal signs
- B. Discoordination syndrome
- C. Motor disorder syndrome
- D. Encephalic syndrome
- E. Infectious toxicosis signs

A 7-year-old boy had complained of headache, nausea, fatigue for 3 weeks. His condition gradually deteriorated, headache and general weakness progressed. The boy had bronchitis at the age of 3. His father has a history of pulmonary tuberculosis. Objectively: body temperature 37,5°C, conscious, lies supine, with the hip and knee flexed to 90 degrees, nuchal rigidity +6 cm, partial ptosis of the right eyelid, the dilated right pupil. General hyperalgesia is present. Liquor: transparent, pressure - 400 mm of water column, protein - 1,5%, cytosis - 610/3 with predominant lymphocytes, sugar - 1,22 mmol/l, chlorides - 500 mmol/l. What is the most likely diagnosis?

- A. Secondary purulent meningitis
- B. Epidemic cerebrospinal meningitis
- C. Tuberculous meningitis
- D. Serous meningitis
- E. Pneumococcal meningitis

A 7-year-old girl has mild form of varicella. Headache,

weakness, vertigo, tremor of her limbs, ataxia, and then mental confusion appeared on the 5th day of illness. Meningeal signs are negative. Cerebrospinal fluid examination is normal. How can you explain these signs?

- A. Meningitis
- B. Meningoencephalitis
- C. Myelitis
- D. Encephalitis
- E. Neurotoxic syndrome

A 25-year-old patient had pharyngitis 2 weeks ago. Now he complains about body temperature rise up to 38°C, general weakness, dyspnoea during walking, swelling and shifting pain in the articulations. Objectively: cyanosis of lips, rhythmic pulse of poor volume - 100 bpm. Left cardiac border deviates outwards from the medioclavicular line by 1 cm. The first heart sound is weakened on the apex, auscultation revealed systolic souffle. What is the most probable etiological factor that caused this pathological process?

- A. Staphylococcus
- B. Pneumococcus
- C. β-haemolytic streptococcus
- D. Virus
- E. Fungi

A 22-y.o. man complains of acute throat pain, increasing upon swallowing during 3 days. Body temperature 38,3°C, neck lymph nodes are slightly enlarged and painful. Pharyngoscopically - tonsillar hyperaemia, enlargement and oedema, tonsils are covered by round yellow fibrinous patches around crypts openings. Beta-haemolytic streptococcus in swab analysis. What is the diagnosis?

- A. Acute follicular tonsillitis
- B. Pharyngeal diphtheria
- C. Infectious mononucleosis
- D. Pharyngeal candidiasis
- E. Acute membranous tonsillitis

Indicate the registration medical document for the patient, who 21.02. was addressed to the doctor with diagnosis ARVD for the first time in this year:

- A. The statistical coupon for registration of final diagnosis is not necessary
- B. The statistical coupon is to be filled in, but a sign (+) is not necessary to be put in
- C. The statistical coupon is to be filled in and it is necessary to deliver on a sign (+)
- D. It is necessary to fill in the emergency notice on a case of a contagion
- E. The necessary registration form is not indicated

2 days ago a patient presented with acute pain in the left half of chest, general weakness, fever and headache. Objectively: between the 4 and 5 rib on the left the skin is erythematous, there are multiple groups of vesicles 2-4 mm in diameter filled with transparent liquid. What disease are these symptoms typical for?

- A. Pemphigus
- B. Herpes zoster
- C. Herpes simplex
- D. Streptococcal impetigo
- E. Herpetiform Duhring's dermatosis

A patient, aged 16, complains of headache, mainly in the frontal and temporal areas, superciliary arch, appearing of vomiting at the peak of headache, pain during the eyeballs movement, joint's pain. On examination: excited, $t^{\circ} - 39^{\circ}\text{C}$, Ps - 110/min. Tonic and clonus cramps. Uncertain meningeal signs. What is the most likely diagnosis?

- A. Influenza, typical disease duration
- B. Influenza with cerebral oedema manifestations
- C. Respiratory syncytial virus
- D. Parainfluenza
- E. Adenovirus infection

The doctor has an appointment with a patient, who 2 days ago developed severe chest pain on the left, general weakness, high temperature, and headache. Objectively along the 4th and 5th intercostal nerves on the left the skin is hyperemic and there are tight clusters of small vesicles filled with clear serous content. What is the most likely diagnosis?

- A. Herpes zoster
- B. Herpes simplex
- C. Streptococcal impetigo
- D. Dermatitis herpetiformis (Dühring's disease)
- E. Pemphigus

A 20-year-old patient complains of severe headache, double vision, weakness, fever, irritability. Objectively: body temperature is 38.1°C , the patient is reluctant to contact, sensitive to stimuli. There are ptosis of the left eyelid, exotropia, anisocoria $S > D$, pronounced meningeal syndrome. On lumbar puncture the cerebrospinal fluid flowed out under a pressure of 300 mm Hg, the fluid is clear, slightly opalescent. 24 -hours later there appeared fibrin film. Protein - 1.4 g/L, lymphocytes - 600/3 per mm^3 , sugar - 0.3 mmol/L. What is the provisional diagnosis?

- A. Tuberculous meningitis
- B. Lymphocytic (Armstrong's) meningitis
- C. Syphilitic meningitis
- D. Mumps meningitis
- E. Meningococcal meningitis

A 65-year-old woman was diagnosed with I the following: chronic rheumatic heart disease, I degree of rheumatic activity; combined mitral heart disease with prevalence of III (NYHA). What tactics of vaccination against respiratory infections should be chosen to provide secondary prevention of exacerbations and to avoid heart failure decompensation in the patient? Scheduled yearly vaccination against influenza and pneumococci

- A. Vaccination should be combined with antibiotic administration
- B. Any vaccination is contraindicated due to elderly age of the patient
- C. Any vaccination is contraindicated due to mitral valve disease
- D. Vaccination is contraindicated due to severe heart failure

A 6-month-old infant is not vaccinated. The physician recommends a DPT (diphtheria, pertussis, tetanus) vaccination but the mother is absolutely against this

procedure. Choose the most substantial argument in favour of vaccination:

- A. Risk of lethal consequences
- B. Epidemic risk for the others
- C. High quality of vaccines
- D. Personal professional experience
- E. -

During winter epidemics of influenza caused predominantly by virus A/California/04/2009 (H1N1), on the 2nd day after the disease onset a 30-year-old hospitalized man presented with high fever, dry cough, myalgia, headache, and general weakness. What should be prescribed as etiotropic treatment in this case?

- A. Neuraminidase inhibitors (Oseltamivir).
- B. Interferon inducers
- C. Antibiotics
- D. Immunoglobulin
- E. Acyclovir

A 23-year-old man complains of facial oedema, headache, dizziness, low urinary output, urine discoloration (dark red). These complaints arose after the patient had had a case of acute tonsillitis. On examination there are facial oedema, the skin is pale, temperature is 37.4°C ; heart rate is 86/min., blood pressure is 170/110 mm Hg. Heart sounds are muffled, the II heart sound is accentuated over the aorta. What etiological factor is the most likely in this case?

- A. Beta-hemolytic streptococcus
- B. Staphylococcus aureus
- C. Streptococcus pyogenes
- D. Staphylococcus saprophyticus
- E. Streptococcus viridans

A 1-year-old child with a case of URTI suddenly developed noisy respirations with difficult inspiration, intercostal retractions, and barking cough on the 2nd night after the disease onset. What is the most likely diagnosis?

- A. Acute bronchitis
- B. Stenosing laryngotracheobronchitis
- C. Bronchial asthma
- D. Acute pulmonary inflammation
- E. Acute bronchiolitis

A 32-year-old pregnant woman at the term of 5-6 weeks was vaccinated against influenza along with her whole family. At that time she was not aware of her pregnancy. The pregnancy is wanted. The woman needs an advice from the family doctor regarding the maintenance of her pregnancy, namely whether there is a risk of fetal malformations because of received vaccination. What advice should the doctor give in this case?

- A. Vaccination against influenza is safe during pregnancy
- B. An infectious diseases specialist must be consulted
- C. Immediate ultrasound of the lesser pelvis is necessary
- D. Therapeutic abortion is recommended
- E. Test for antibodies against influenza virus is necessary

Among first-year schoolchildren there was a case of measles registered. A 7-year-old boy from the same group was not vaccinated against measles due to refusal of his parent. His clinical history has no cases of measles in the past and is not contraindicated to immunobiological agents. Choose the most rational tactics of measles prevention in this schoolboy:

- A. Measles-Mumps-Rubella vaccine
- B. Antiviral agents
- C. Isolation for 20 days
- D. Antibiotics
- E. Immunomodulators

A 26-year-old man is undergoing a regular check-up. One year ago he had a case of tonsillar diphtheria complicated with myocarditis. Presently his condition is satisfactory, no signs of cardiovascular failure; ECG shows first-degree atrioventricular block. What vaccine was administered to this man according to his age?

- A. Adsorbed diphtheria tetanus vaccine (modified)
- B. Oral polio vaccine (OPV)
- C. Acellular DPT vaccine
- D. BCG vaccine
- E. Tetanus anatoxin

A 69-year-old woman was diagnosed with the following: ischemic heart disease; stable exertional angina pectoris, FC III; heart failure IIA with retained left ventricular ejection fraction, functional class III (NYHA). What vaccine should be chosen for influenza prevention and to avoid destabilization of the patient's condition?

- A. Recombinant influenza vaccine (RIV)
- B. Type of influenza vaccine is not important
- C. Inactivated influenza vaccine (IIV)
- D. Vaccination is contraindicated due to severe heart failure
- E. Vaccination is contraindicated due to elderly age of the patient

A 45-year-old woman has been suffering from rheumatoid arthritis for 10 years and takes methotrexate twice a week. What statement regarding vaccination against pneumococci (23-valent vaccine) would conform to the recommendations for the management of rheumatoid arthritis issued by the European League Against Rheumatism in 2010?

- A. Vaccination is recommended
- B. Vaccination is contraindicated to the patients who take methotrexate
- C. Vaccination necessitates increase in the dosage of the long-term medicines
- D. Vaccination is contraindicated in cases when inflammatory process is active
- E. Vaccination is not recommended

A 26-year-old man complains of chills, rhinitis, dry cough, and fever up to 38°C. Examination shows him to be in a moderately severe condition; there are small pale pink non-merging spots on the skin of his back, abdomen, and extremities. Palpation reveals enlarged occipital and axillary lymph nodes. No information about vaccination history could be obtained. What is the likely aetiology of this disease?

- A. Rubella virus
- B. Mumps virus
- C. Epstein-Barr virus
- D. Neisseria meningitidis
- E. Streptococcus

A 6-week-old child is admitted because of tachypnea. Birth had been uneventful, although conjunctivitis developed on the third day of life and lasted for about 2 weeks. Physical examination reveals tachypnea, bilateral inspiratory crackles and single expiratory wheezing. Bilateral pneumonia is evident on chest X-ray. The child is afebrile and has no history of fever. White blood cell count is $15 \times 10^9/l$, with 28% of eosinophils. The most likely cause of this child's symptoms is:

- A. Pneumocystis carinii
- B. Mycoplasma pneumoniae
- C. Chlamydia trachomatis
- D. Visceral larva migrans
- E. Varicella

The 10-y.o. boy has complaints on headache, weakness, fever 40°C, vomiting, expressed dyspnoea, pale skin with flush on right cheek, lag of right hemithorax respiratory movement, dullness on percussion over low lobe of right lung, weakness of vesicular respiration in this zone. The abdomen is painless and soft at palpation. Which disease leads to these symptoms and signs?

- A. Intestinal infection
- B. Acute appendicitis
- C. Pneumonia croupousa
- D. Acute cholecystitis
- E. Flu

A child is 2 years old. The child complains of hoarse voice, dyspnoea with obstructed inspiration. The disease started 3 days ago from dry cough and nose stuffiness. Objectively: general condition is unbalanced, stridor is present. The child's skin is pale. Body temperature is 37,7°C. The palatine arches are hyperaemic. There is no deposit. Heart sounds are rhythmic. Auscultation of lungs reveals rough breathing sounds, crepitation is absent. Parainfluenza virus has been detected in nasopharynx lavage. What is the most likely diagnosis?

- A. Epiglottitis
- B. Foreign body
- C. Acute laryngotracheitis
- D. Diphtheria
- E. Laryngospasm

The patient with acute respiratory viral infection (3-rd day of disease) has complaints on pain in lumbar region, nausea, dysuria, oliguria. Urinalysis - haematuria (100-200 RBC in eyeshot spot), specific gravity - 1002. The blood creatinine level is 0,18 mmol/L, potassium level - 6,4 mmol/L. Make the diagnosis:

- A. Acute renal failure
- B. Acute interstitial nephritis
- C. Acute glomerulonephritis
- D. Acute cystitis

E. Acute renal colic

A 9-year-old patient has measles. On the 6th day after the rash appeared, the boy developed a condition manifested by dyspnoea, barking cough, stentorian respiration. Objectively: the rash on the face, neck and torso turned brown. There is a branny desquamation. Respiratory rate is 22/min. What complication should be diagnosed?

- A. Bronchitis
- B. Pneumonia
- C. Pharyngitis
- D. Laryngotracheitis
- E. Quinsy

A 25-year-old pediatrician fell ill a week ago: body temperature rose up to 37,6°C, there appeared a slight swelling on his neck. His illness was diagnosed as ARD, cervical lymphadenitis. Treatment course included erythromycin, hot compress on the neck. In course of treatment body temperature rose up to 39°C, there appeared headache, repeated vomiting, meningeal syndrome. What studies are necessary for the final diagnosis?

- A. Puncture of cervical lymph node
- B. Cerebrospinal puncture
- C. Complete blood count
- D. Sputum test for secondary flora
- E. Roentgenological examination of lungs

An 18-year-old patient was admitted to a hospital with complaints of headache, weakness, high temperature, sore throat. Objectively: enlargement of all groups of lymph nodes was revealed. The liver is enlarged by 3 cm, spleen - by 1 cm. In blood: leukocytosis, atypical lymphocytes - 15%. What is the most probable diagnosis?

- A. Acute lymphoid leucosis
- B. Diphtheria
- C. Angina
- D. Infectious mononucleosis
- E. Adenoviral infection

A woman complains of high temperature to 38°C, mild pain in the throat during 3 days. On examination: angle lymphatic nodes of the jaw are 3 cm enlarged, palatine tonsils are enlarged and coated with grey plaque, which spreads to the uvula, and frontal palatine arches. What is the most probable diagnosis?

- A. Infectious mononucleosis
- B. Vincent's angina
- C. Larynx diphtheria
- D. Agranulocytosis
- E. Oropharyngeal candidiasis

A 25-year-old woman complained of oedema on her face and legs, rise of blood pressure up to 160/100 mm Hg and weakness. She fell ill 3 weeks after recovering from angina. Urinalysis data: protein of 0,5 g/l, erythrocytes of 17-20/field, leukocytes of 2-3/field, erythrocyte casts. What treatment should be initiated after specifying the diagnosis?

- A. Heparin
- B. Penicillin OS
- C. Ceftriaxone

- D. Dipyridamole
- E. Ciprofloxacin

2 weeks after having quinsy, a 26-year-old male patient got facial oedema, moderate pain in the sacrum. Objectively: body temperature is 37,5°C, AP - 100/80 mm Hg. Urinalysis results: RBC - up to 100 fresh cells in per HPF, protein - 2,2 g/l, hyaline cylinders - up to 10 per HPF, relative density - 1002. What is the most likely diagnosis?

- A. Nephroma
- B. Acute pyelonephritis
- C. Acute glomerulonephritis
- D. Urolithiasis
- E. Chronic glomerulonephritis

A 28-y.o. woman consulted a doctor about oedematous face, moderate legs oedema; occasionally her urine has colour of "meat slops". When she was a teenager, she often fell ill with angina. Objectively: skin is pallor, body temperature is 36,8°C, Ps - 68/min, rhythmic. AP - 170/110 mm Hg. What urine changes are the most probable?

- A. Increase of relative density, haematuria, bacteriuria
- B. Proteinuria, haematuria, cylindruria
- C. Decrease of relative density, proteinuria, some urinary sediment
- D. Erythrocyturia and uricosuria
- E. Decrease of relative density, proteinuria

2 weeks after recovering from angina a 29-year-old patient noticed face oedema, weakness, decreased work performance. There was gradual progress of dyspnoea, oedema of the lower extremities, lumbar spine. Objectively: pale skin, weakening of the heart sounds, anasarca. AP- 160/100 mm Hg. In urine: the relative density - 1021, protein - 5 g/l, erythrocytes - 20-30 in the field of vision, hyaline cylinders - 4-6 in the field of vision. What is the most likely diagnosis?

- A. Essential hypertension
- B. Acute glomerulonephritis
- C. Acute pyelonephritis
- D. Infectious allergic myocarditis
- E. Myxedema

A general practitioner visited a 2-year-old child and diagnosed him with measles. The child attends a nursery, has a 5-year-old sister. What document must be filled in for the effective anti-epidemic measures in the given health locality?

- A. Career's leave certificate
- B. Infant's record (report form № 112/o)
- C. Emergency notification on infectious disease (form № 058/o)
- D. House call record (form № 031/o)
- E. Sick leave

A 67-year-old male patient complains of rash, severe pain in the subscapular region on the right. Objectively: skin in the right subscapular region is covered with linearly arranged pink-red oedematous lesions that are somewhat infiltrated, and have clear boundaries. On the lesion surface, there are vesicles with transparent exudate. What is the most likely diagnosis?

- A. Herpes zoster
- B. Dühring dermatitis
- C. Erysipelas
- D. Atopic dermatitis
- E. Impetigo

On the second day of the disease, a 22-year-old male patient complains of high-grade fever, headache in the region of forehead and superciliary arches, and during eye movement; aching muscles and joints. Objectively: body temperature is 39°C. Face is hyperaemic, sclerae are injected. The mucous membrane of the soft palate and posterior pharyngeal wall is bright hyperaemic and has petechial haemorrhages. What changes in the hemogram are typical for this disease?

- A. Leukocytosis
- B. Leukopenia
- C. Neutrocytosis
- D. Anemia
- E. Accelerated ESR

A 30-year-old woman ill with influenza felt palpitation and dull cardiac pain during moderate physical exercise. Objectively: Ps - 96 bpm, AP - 100/60 mm Hg. The first sound is quiet above the apex, soft systolic murmur is present. What complication is indicated by these clinical presentations?

- A. Acute allergic infectious myocarditis
- B. Acute viral myocarditis
- C. Idiopathic myocarditis
- D. Myocardiopathy
- E. Neurocirculatory dystonia

A 10-y.o. boy with haemophilia has signs of acute respiratory viral infection with fever. What of the mentioned antifebrile medicines are contraindicated to this patient?

- A. Analgin
- B. Pipolphen
- C. Paracetamol
- D. Panadol extra
- E. Acetylsalicylic acid

A 3-y.o. girl has had a temperature rise up to 38°C, rhinitis, dry superficial cough, flabbiness, and appetite loss. Palpation did not reveal any changes over her lungs. Percussion sound has a wooden resonance, auscultation revealed puerile breathing, no rales. In blood: leukopenia, lymphocytosis, increased ESR. What is the most probable diagnosis?

- A. Acute obstructive bronchitis
- B. Recurrent bronchitis, acute condition
- C. Acute simple bronchitis
- D. Bilateral microfocal pneumonia
- E. Acute simple tracheitis

A 7-y.o. girl fell ill abruptly: fever, headache, severe sore throat, vomiting. Minute bright red rash appear in her reddened skin in 3 hours. It is more intensive in axillae and groin. Mucous membrane of oropharynx is hyperaemic. Greyish patches is on the tonsils. Submaxillary lymph nodes are enlarged and painful. What is your diagnosis?

- A. Measles
- B. Scarlet fever

- C. Rubella
- D. Pseudotuberculosis
- E. Enteroviral infection

A 4 month old child fell seriously ill: body temperature rose up to 38,5°C, the child became inert and had a single vomiting. 10 hours later, there appeared rash over the buttocks and lower limbs in form of petechiae, spots and papules. Some haemorrhagic elements have necrosis in the centre. What is the most probable disease?

- A. Rubella
- B. Influenza
- C. Haemorrhagic vasculitis
- D. Meningococemia
- E. Scarlet fever

A 38-year-old man was delivered to the hospital in unconscious state. The symptoms of illness turned up a day before: headache, nausea, vomiting, t° - 38,5°C, dizziness, delusion. For the last 4 days, he had been complaining of pain and hearing loss in the left ear. Objectively: sopor, rigidity of occipital muscles, bilateral Kernig's symptom, general hyperesthesia, purulent discharges from the left ear. What is the most probable diagnosis?

- A. Primary purulent meningitis
- B. Tuberculous meningitis
- C. Subarachnoidal haemorrhage
- D. Secondary purulent meningitis
- E. Parenchymatous subarachnoidal haemorrhage

On the 21 day after appearance of vesiculous chickenpox rash a 7-year-old child developed ataxia, nystagmus, intention tremor, muscle hypotonia. Liquor analysis shows a low-grade lymphocytic pleocytosis, slightly increased protein rate. What complication is it?

- A. Encephalitis
- B. Purulent meningitis
- C. Pneumonitis
- D. Acute nephritis
- E. Postherpetic neuralgia

In an inhabited locality, there is an increase of diphtheria during the last 3 years with separate outbursts in families. What measure can effectively influence the epidemic process of diphtheria and reduce the morbidity rate to single cases?

- A. Hospitalization of patients
- B. Detection of carriers
- C. Early diagnostics
- D. Immunization of the population
- E. Disinfection in disease focus

A 6-year-old boy had had a quinsy. 9 days later, there appeared oedema of the face, extremities and trunk, general health condition deteriorated. Urine became turbid. Objectively: expressive oedema, ascites. AP-100/55 mm Hg, diuresis - 0,2 l of urine per day. Results of the biochemical blood analysis: total protein - 50 g/l, cholesterol - 11,28 mmol/l, urea - 7,15 mmol/l, creatinine - 0,08 mmol/l. Urinalysis results: leukocytes - 3-5 per HPF, red blood cells are absent. What is the provisional diagnosis?

- A. Acute pyelonephritis

- B. Urolithiasis
- C. Acute glomerulonephritis
- D. Acute renal failure
- E. Chronic glomerulonephritis

A 23-year-old man complains about face oedema, headache, dizziness, reduced urination, change of urine colour (dark-red). These presentations appeared after pharyngitis. Objectively: face oedema, pale skin, temperature - 37,4°C; heart rate - 86/min, AP - 170/110 mm Hg. Heart sounds are muffled, the II sound is accentuated above aorta. What etiological factor is probable in this case?

- A. Staphylococcus aureus
- B. β -haemolytic streptococcus
- C. α -haemolytic streptococcus
- D. Pyogenic streptococcus
- E. Saprophytic staphylococcus

A factory worker has ARD complicated by acute bronchitis. He receives treatment in the outpatient setting. The attending doctor has issued him a medical certificate for 5 days and then extended its duration by 5 more days. Patient cannot get down to work because of his health status. Who should extend the duration of medical certificate for this patient?

- A. Medical superintendent
- B. Deputy medical superintendent in charge of temporary disability examination
- C. A department chief
- D. Deputy medical superintendent in charge of medical treatment
- E. Medical advisory commission

A 27-year-old sexually active female complains of numerous vesicles on the right sex lip, itch and burning. Eruptions regularly turn up before menstruation and disappear 8-10 days later. What is the most likely diagnosis?

- A. Bartholinitis
- B. Herpes simplex virus
- C. Primary syphilis
- D. Cytomegalovirus infection
- E. Genital condylomata

Ambulance brought to the hospital a patient with acute respiratory viral infection. The illness began suddenly with temperature rise up to 39,9°C. He complains of headache in frontotemporal lobes, pain in eyeballs, aching of the whole body, nose stuffiness, sore throat, dry cough. At home, he had a nasal haemorrhage twice. What type of acute respiratory viral infection is it?

- A. Adenoviral infection
- B. Influenza
- C. Parainfluenza
- D. RS-infection
- E. Enterovirus infection

An 18-month-old child was taken to a hospital on the 4-th day of the disease. The disease began acutely with temperature 39°C, weakness, cough, breathlessness. He is pale, cyanotic, has had febrile temperature for over 3 days. There are crepitative fine bubbling rales on auscultation. Percussion

sound is shortened in the right infrascapular region. X-ray picture shows non-homogeneous segment infiltration 8-10 mm on the right, the intensification of lung pattern. Your diagnosis:

- A. Grippe
- B. Bronchitis
- C. Segmentary pneumonia
- D. Bronchiolitis
- E. Interstitial pneumonia

A 25-year-old patient complains of having dull heart pain for the last 10 days, dyspnoea on mild exertion, palpitations. The disease developed 2 weeks ago after a respiratory infection. Objectively: acrocyanosis, AP - 90/75 mm Hg, Ps - 96/min. Cardiac borders appear to be shifted to the left and right. Heart sounds are weak and have triple rhythm; there is systolic murmur at the apex. ECG showed sinus rhythm, complete left bundle branch block. What is the most likely diagnosis?

- A. Exudative pericarditis
- B. Infective endocarditis
- C. Infectious-allergic myocarditis
- D. Myocarditic cardiosclerosis
- E. Vegetative-vascular dystonia

A 42-year-old patient complains of back pain, darkened urine, general weakness, dizziness that occurred after treating a cold with aspirin and ampicillin. Objectively: the patient is pale, with subicteric sclerae. HR - 98 bpm. Liver - +2 cm, spleen - +3 cm. In blood: RBCs - $2,6 \times 10^{12}/l$, Hb - 60 g/l, CI - 0,9, WBCs - $9,4 \times 10^9/l$, basophils - 0,5%, eosinophils - 3%, stab neutrophils - 6% segmented neutrophils - 58%, lymphocytes - 25%, monocytes - 7%, ESR - 38 mm/hour, reticulocytes - 24%. Total bilirubin - 38 millimole/l. What complication occurred in the patient?

- A. Toxic hepatitis
- B. Cholelithiasis
- C. Acquired haemolytic anaemia
- D. Agranulocytosis
- E. Paroxysmal nocturnal hemoglobinuria

A 2-year-old girl has been ill for 3 days. Today she has low-grade fever, severe catarrhal presentations, slight maculopapular rash on her buttocks and enlarged occipital lymph nodes. What is your diagnosis?

- A. Scarlet fever
- B. Measles
- C. Adenoviral infection
- D. Pseudotuberculosis
- E. Rubella

A child, aged 4, has being ill for 5 days, suffers from cough, skin rash, t° - 38,2°C, facial hydropsy, photosensitivity, conjunctivitis. On the face, neck, upper part of the chest there is bright maculopapular rash with areas of merging. Hyperaemic throat. Seropurulent nasal discharge. In lungs, there are dry crackles. What is the most probable preliminary diagnosis?

- A. Adenovirus infection
- B. Scarlet fever

- C. Rubella
- D. Enterovirus exanthema
- E. Measles

A 27-year-old patient has a severe headache, nausea and vomiting. Objectively: body temperature is 38,9°C, there is a haemorrhagic stellate rash on the legs. The patient takes meningeal pose in bed. Meningeal symptoms are strongly positive. Deep reflexes are brisk, uniform. Pathological reflexes are absent. It has been suspected that the patient has epidemic cerebrospinal meningitis. Which of additional tests should be performed in the first place to verify the diagnosis?

- A. Echoencephalography
- B. Lumbar puncture
- C. Rheoencephalography
- D. Electroencephalography
- E. Survey craniogram

The disease of a 21-y.o. patient began with raise of temperature up to 39,0°C, headache, chill, repeated vomiting. Rigidity of occipital muscles is determined. The analysis of liquor revealed: cytotosis - 1237 in 1 ml, including 84% of neutrophils, 16% of lymphocytes. On bacterioscopy: gram-negative cocci are found in liquor. What is the most probable disease?

- A. Meningococcal infection: serous meningitis
- B. Meningococcal infection: purulent meningitis
- C. Secondary purulent meningitis
- D. Serous meningitis
- E. Infectious mononucleosis

A 4-year-old boy had untimely vaccination. He complains of painful swallowing, headache, inertness, fever. Objectively: the child is pale, has enlarged anterior cervical lymph nodes, swollen tonsils with cyanotic hyperaemia, tonsils are covered with gray-white pellicles, which cannot be easily removed. When the pellicles are forcibly removed, the tonsils bleed. What is the most likely diagnosis?

- A. Lacunar tonsillitis
- B. Pseudomembranous tonsillitis
- C. Infectious mononucleosis
- D. Oropharyngeal diphtheria
- E. Follicular tonsillitis

A man, aged 25, presents with facial oedema, moderate back pains, body temperature of 37,5°C, BP- 180/100 mm Hg, haematuria (up to 100 in v/f), proteinuria (2,0 g/l), hyaline casts - 10 in v/f, specific gravity - 1020. The onset of the disease is probably connected with acute tonsillitis 2 weeks ago. The most likely diagnosis is:

- A. Acute pyelonephritis
- B. Cancer of the kidney
- C. Acute glomerulonephritis
- D. Urolithiasis
- E. Chronic glomerulonephritis

A 58-year-old women undergoing chemotherapy for her oncologic disorder has developed sore throat.

Examination revealed necrotic areas on the mucosa of the pharynx and tonsils. Many of her teeth are afflicted with caries. In blood: neutrophilic granulocytes are practically absent against the background of leucopenia. Leukocytes are represented mainly by lymphocytes and monocytes. What disease can be suspected in the given case?

- A. Pseudomembranous (Vincent's) tonsillitis.
- B. Lacunar tonsillitis.
- C. Diphtheria.
- D. Agranulocitar tonsillitis.
- E. Syphilitic tonsillitis.

A 3-year-old girl has had an increase in body temperature up to 38,5°C for four days. The child refuses to eat. Over the last two days, nose and mouth breathing has become difficult. Mesopharyngoscopy reveals hyperthermia and enlargement of tonsils, as well as hyperaemia and bulging of the posterior wall of the oropharynx, which significantly narrows the oropharyngeal lumen. What complication of quinsy occurred in the patient?

- A. Paratonsillar abscess
- B. Parapharyngeal abscess
- C. Phlegmon of the mouth floor
- D. Retropharyngeal abscess
- E. Laryngostenosis

A patient consulted a doctor about acute respiratory viral infection. The patient was acknowledged to be off work. The doctor issued him a medical certificate for 5 days. The patient is not recovering. What measures should the doctor take in order to legalize the further disability of patient?

- A. To prolong the medical certificate at his own discretion but no more than for 6 days in total
- B. To prolong the medical certificate together with department superintendent
- C. To send the patient to the medical consultative commission
- D. To send the patient to the medical social expert commission
- E. To prolong the medical certificate at his own discretion but no more than for 10 days in total

On the next day after being taken by influenza a 46-year-old woman presented with intensified headache, dizziness, nausea. Objectively: the patient is conscious, psychomotor excitement is present; there is general hyperesthesia, moderate meningeal syndrome, and nystagmus. Tendon reflexes are higher on the right, right extremities display muscle weakness, and right-sided pathological Babinski's sign is present. Liquor is transparent, pressure is 220 mm of water column; cytotosis is 463 with prevailing lymphocytes. What is the most likely diagnosis?

- A. Bacterial meningoenzephalitis
- B. Subarachnoid haemorrhage
- C. Influenzal meningoenzephalitis
- D. Parenchymatous subarachnoid haemorrhage
- E. Ischemic stroke

A 9-month-old child presents with fever, cough, and dyspnoea. The symptoms appeared 5 days ago after a contact with a person having ARVI.

Objectively: the child is in grave condition. Temperature of 38°C, cyanosis of nasolabial triangle is present. RR - 54/min, nasal flaring while breathing. There was percussion dullness on the right below the scapula angle, and tympanic sound over the rest of lungs. Auscultation revealed bilateral fine moist rales predominating on the right. What is the most likely diagnosis?

- A. ARVI
- B. Acute laryngotracheitis
- C. Acute bronchitis
- D. Acute bronchiolitis
- E. Acute pneumonia

A 26-year-old patient with left lower lobe pneumonia experiences an acute chest pain on the left during coughing. Objectively: diffuse cyanosis, extension of the left side of chest. Percussion reveals high tympanitis. Auscultation reveals no respiratory murmurs above the left side of chest. There is a deviation of the right cardiac border towards the midclavicular line. What examination will be the most informative?

- A. X-Ray
- B. Bronchoscopy
- C. Bronchography
- D. Pneumotachometry
- E. Spirography

A 38-y.o. woman complains of a purulent discharge from the left nostril. The body temperature is 37,5°C. The patient is ill during a week and associates her illness with common cold. Pain on palpation of her left cheek reveals tenderness. The mucous membrane in the left nasal cavity is red and turgid. The purulent exudates is seen in the middle meatus in maxillary. What is the most probable diagnosis?

- A. Acute purulent frontitis
- B. Acute purulent ethmoiditis
- C. Acute purulent sphenoiditis
- D. Acute purulent maxillary sinusitis
- E. Acute purulent pansinusitis

A 36-y.o. woman is in the 12-th week of her first pregnancy. She was treated for infertility in the past. She contacted a child who fell ill with rubella 2 days after their meeting. Woman does not know if she has ever been infected with rubella. What is the adequate tactics?

- A. Foetus wastage
- B. Interferon prescription
- C. Immunoglobulin injection
- D. Cyclovin prescription
- E. Monitoring of the specific IgG IgM with the ELISA

A 1,5-y.o. child fell seriously ill: chill, body temperature rise up to 40,1°C, then rapid dropping to 36,2°C, skin covered with voluminous haemorrhagic rash and purple cyanotic spots. Extremities are cold, face features are sharpened. Diagnosis: meningococcosis, fulminant form, infection-toxic shock. What antibiotic must be used at the preadmission stage?

- A. Penicillin
- B. Lincomycin
- C. Gentamycin
- D. Sulfamonometoxin
- E. Soluble Levomycetine succinate

Condition of a patient with purulent otitis has abruptly deteriorated: he presents with headache, vomiting, febrile temperature, general hyperesthesia. There are meningeal signs, papilledema. Focal symptoms are absent. Cerebrospinal fluid is turbid, pressure is high, and there is albuminocytologic dissociation with neutrophil predominance. What disease can be suspected?

- A. Meningoencephalitis
- B. Serous meningitis
- C. Secondary purulent meningitis
- D. Primary purulent meningitis
- E. Subarachnoid haemorrhage

A 24-year-old man on the 5th day of acute respiratory disease with high-grade temperature started having strong headaches, systemic dizziness, sensation of double vision, paresis of mimic muscles to the right, tickling by swallowing. Diagnosis: Acute viral encephalitis. Determine the basic direction of the emergent therapy.

- A. Zovirax
- B. Glucocorticoids
- C. Cephtriaxon
- D. Lasix
- E. Hemodesis

A 24-year-old patient complains about general weakness, dizziness, body temperature rise up to 37,5°C, sore throat, neck oedema, and enlargement of submaxillary lymph nodes. Objectively: mucous membrane of oropharynx is oedematic and cyanotic, tonsils are enlarged and covered with films that spread beyond the tonsils and cannot be easily removed. What is the leading mechanism of this illness' development?

- A. Action of bacterial endotoxin
- B. Action of bacterial exotoxin
- C. Allergic
- D. Accumulation of suboxidized products
- E. Bacteraemia

2 weeks after recovering from angina an 8-year-old boy developed oedema of face and lower limbs. Objectively: the patient is in grave condition, AP - 120/80 mm Hg. Urine is of dark brown colour. Oliguria is present. On urine analysis: relative density - 1,015, protein - 1,2 g/l, RBCs are leached and cover the whole vision field, granular casts - 1-2 in the vision field, salts are represented by urates (big number). What is the most likely diagnosis?

- A. Acute glomerulonephritis with nephrotic syndrome
- B. Acute glomerulonephritis with nephrotic syndrome, haematuria and hypertension
- C. Acute glomerulonephritis with isolated urinary syndrome
- D. Acute glomerulonephritis with nephritic syndrome

E. Nephrolithiasis

A 18-y.o. male patient complains of pain in knee and ankle joints, temperature elevation to 39,5°C. He had a respiratory disease 1,5 week ago. On examination: temperature - 38,5°C, swollen knee and ankle joints, pulse - 106 bpm, rhythmic, AP - 90/60 mm Hg, heart borders without changes, sounds are weakened, soft systolic apical murmur. What indicator is connected with possible aetiology of the process?

- A. 1-antitrypsine
- B. Creatinkinase
- C. Antistreptolysine-0
- D. Rheumatic factor
- E. Seromucoid

A 26-year-old male patient consulted a doctor about sore throat, fever up to 38,2°C. A week before, the patient had quinsy, did not follow medical recommendations. On examination, the patient had forced position of his head, trismus of chewing muscles. Left peritonsillar region is markedly hyperaemic, swollen. What is the provisional diagnosis?

- A. Meningitis
- B. Phlegmonous tonsillitis
- C. Left-sided peritonsillar abscess
- D. Pharyngeal diphtheria
- E. Tonsil tumour

Patient 36 years old with the expressed meningeal syndrome, petechial rash and chill, temperature of body - 39°C, inflammatory changes in peripheral blood and neutrophilic pleocytosis in a CSF was diagnosed with meningitis. What syndrome is crucial for diagnosis of meningitis?

- A. Neutrophilic pleocytosis
- B. Inflammatory changes in peripheral blood
- C. petechial rash
- D. Fever and chill
- E. Meningeal syndrome

A 26-year-old male patient complains of a rash on the upper lip skin, which arose on a background of influenza with high-grade fever and is accompanied by pain and burning. The rash has been present for 3 days. Objectively: the skin of the upper lip is oedematous and erythematous, grouped vesicles are filled with serous fluid and have a rough surface. What is the most likely diagnosis?

- A. Eczema
- B. Contact dermatitis
- C. Dermatitis herpetiformis
- D. Erythema multiforme
- E. Herpetic vesicular dermatitis

A patient with high temperature came to a first-aid post in the evening. The fact of temporary disability was established. Indicate the order of examination in this case:

- A. The sick list for 1 day should be issued
- B. The sick list for up to 3 days should be issued
- C. The sick list for 3 days should be issued
- D. Any document shouldn't be issued
- E. The night duty doctor should issue a medical certificate, which will be subsequently used for issuing a sick list from the date of the

previous day

A 23-year-old woman, who works as a milk and dairy inspector, after the miscarriage suffers from high fever up to 38,6°C, recurring chills, excessive sweating. Objectively: polyadenitis, pain in the lumbosacral spine, swollen left knee joint, enlarged liver and spleen. What diagnosis is most likely?

- A. Brucellosis.
- B. Sepsis.
- C. Toxoplasmosis.
- D. Polyarticular rheumatoid arthritis.
- E. Yersiniosis.

A woman addressed a doctor with complaints of increased body temperature up to 37,8°C and moderately sore throat for the last 3 days. Objectively: mandibular lymph nodes are enlarged up to 3 sm. Palatine tonsils are hypertrophied, covered with grey coating that spreads to the uvula and anterior pillars of the fauces. What diagnosis is most likely?

- A. Oropharyngeal diphtheria.
- B. Agranulocytosis.
- C. Pseudomembranous (Vincent's) tonsillitis.
- D. Infectious mononucleosis.
- E. Oropharyngeal candidiasis.

CHAPTER 3

A 16-y.o. teenager complains of weakness, dizziness, sense of heaviness in the left hypochondrium. Objectively: skin and visible mucous membranes are icteric. Steeple skull. Liver +2 cm, the lower pole of spleen is at the level of navel. Blood test: RBC - $2,7 \times 10^{12}/L$, Hb - 88 g/L, WBC - $5,6 \times 10^9/L$, ESR - 15 mm/h. What is the most probable reason of bilirubin level change?

- A. Increase of conjugated bilirubin
- B. Increase of unconjugated bilirubin
- C. Increase of unconjugated and conjugated bilirubin
- D. Decrease of conjugated bilirubin
- E. Decrease of unconjugated bilirubin

A 24-y.o. woman consulted a doctor about continued fever, night sweating. She lost 7 kg within the last 3 months. She had casual sexual contacts. Objectively: enlargement of all lymph nodes, hepatolienal syndrome. Blood count: leukocytes - $2,2 \times 10^9/L$. What disease can be suspected?

- A. Lymphogranulomatosis
- B. HIV-infection
- C. Tuberculosis
- D. Infectious mononucleosis
- E. Chroniosepsis

What preparations are used for prevention of fungal infection?

- A. Rubomycin, Bleomycin, Mytomycin C
- B. Fluconazol, Orungol, Nisoral
- C. Cytosar, Cormyctin, Lomycitin
- D. Captopril, Enalapril
- E. Isoniazid, Ftibazid, Pyrazinamid

Patient has been in a hospital. The beginning of the disease was gradual: nausea, vomiting, dark urine,

acholic stools, yellowness of the skin and scleras. The liver is protruded by 3 cm. Jaundice progressed on the 14th day of the disease. The liver diminished in size. What complication of viral hepatitis caused deterioration of the patient's condition?

- A. Meningitis
- B. Relapse of viral hepatitis
- C. Hepatic encephalopathy
- D. Cholangitis
- E. Infectious-toxic shock

A pregnant woman may be diagnosed with hepatitis if it is confirmed by the presence of elevated:

- A. Sedimentation rates
- B. WBCs
- C. Alkaline phosphatase
- D. SGOT (Serum Glutamic-Oxaloacetic Transaminase / AST)
- E. BUN (Blood Urea Nitrogen)

The 28-y.o. woman applied to doctor because of limited loss of the hair. In the anamnesis - she had frequent headache indisposition, arthromyalgia, fever, irregular casual sexual life, drug user. RW is negative. What examination must be done first?

- A. Examination for neuropathology
- B. Examination for HIV
- C. Examination for gonorrhoea
- D. Examination for fungi
- E. Examination for trichomoniasis

A patient, aged 48, complains of heaviness in the right hypochondrium, itching of the skin. Repeatedly he had been treated in infectious diseases hospital because of icterus and itch. Objectively: meteorism, ascites, dilation of abdominal wall veins, protruding navel, spleen enlargement. Diagnosis is:

- A. Liver cirrhosis
- B. Cancer of the liver
- C. Cancer of the head of pancreas
- D. Gallstones
- E. Viral hepatitis B

A 20-y.o. patient was admitted to the hospital with complaints of having skin and sclera icteritiousness, dark urine, single vomiting, appetite loss, body temperature rise up to 38°C for 2 days. Three weeks ago, he went in for fishing and shared his dishes with friends. Objectively: the patient is flabby, t° - 36,8°C, skin and scleras are icteritious, liver sticks from under the costal margin by 3 cm, it is sensitive; spleen isn't palpable. Urine is dark, stool is partly acholic. What is the most probable diagnosis?

- A. Leptospirosis
- B. Infectious mononucleosis
- C. Haemolytic anaemia
- D. Intestinal yersiniosis
- E. Virus A hepatitis

A 26-year-old manual worker complained of 3 weeks history of fevers and fatigue, weight loss with no other symptoms. Physical findings: Temperature 37,6°C, Ps - 88 bpm, blood pressure 115/70 mm Hg, superficial lymph nodes (occipital, submental, cervical, axillary) are enlarged, neither tender nor painful. Rubella-like rash on the trunk and extremities. Herpes simplex lesions on the lips.

Candidiasis of oral cavity. What infectious disease would you suspect?

- A. Influenza
- B. Rubella
- C. HIV infection
- D. Infectious mononucleosis
- E. Tuberculosis

A patient with hepatic cirrhosis drank some spirits that resulted in headache, vomiting, aversion to food, insomnia, jaundice, fetor hepaticus, abdominal swelling. What complication of hepatic cirrhosis is meant?

- A. Hepatocellular insufficiency
- B. Haemorrhage from varicosely dilated veins of oesophagus
- C. Portal hypertension
- D. Acute stomach ulcer
- E. Thrombosis of mesenteric vessels

A 22-year-old woman complained of right subcostal aching pain, nausea, and decreased appetite. She fell ill 2 months after appendectomy when jaundice appeared. She was treated in an infectious hospital. 1-year later above-mentioned symptoms developed. On exam: the subicteric sclerae, enlarged firm liver. Your preliminary diagnosis:

- A. Calculous cholecystitis
- B. Gilbert's disease
- C. Chronic viral hepatitis
- D. Acute viral hepatitis
- E. Chronic cholangitis

The diagnostics of the AIDS epidemic initially was made in the USA by means of:

- A. The bacteriological method
- B. The virological method
- C. The viroscopic method
- D. The serological method
- E. The epidemiological method

An 8-y.o. boy was ill with B hepatitis one year ago. In the last 2 months, he has complaints of undue fatigability, sleep disorder, appetite loss, nausea, especially in the mornings. Skin is not icterus; liver and spleen are 1 cm below the costal margins, painless. Alanine aminotransferase activity is 2,2 mcmol/L. How can this condition be estimated?

- A. Recurrence of viral hepatitis type B
- B. Biliary dyskinesia
- C. Residual effects of old viral hepatitis type B
- D. Development of chronic hepatitis
- E. Development of liver cirrhosis

47-y.o. patient complains of intensive skin itching, jaundice, bone pain. The skin is hyperpigmented. There is multiple xanthelasma palpebrae. The liver is +6 cm enlarged, hard with acute edge. The blood analysis revealed total bilirubin 160 mkmol/L, direct - 110 mkmol/L, AST (aspartate aminotransferase) - 2,1 mmol/L per hour, ALT - 1,8 mmol/L, alkaline phosphatase - 4,6 mmol/L per hour, cholesterol - 9,2 mmol/L, antimitochondrial antibodies M2 in a high titre. What is the probable diagnosis?

- A. Primary liver cancer
- B. Primary biliary liver cirrhosis

- C. Chronic viral hepatitis B
- D. Acute viral hepatitis B
- E. Alcoholic liver cirrhosis

For 3 days, a 28-year-old female patient had had the body temperature increase up to 38°C, weakness, poor appetite, nausea, a single vomiting. On the 4th day the temperature was normal, the condition improved, but the jaundice developed. Objectively: moderate ictericity of skin, +3 cm enlarged liver of elastic consistency. Ortnér's, Kehr's and Voznesensky's symptoms are negative. What test will verify the diagnosis?

- A. Complete blood count
- B. Ultrasound of the abdomen
- C. IgM Anti-HAV detection
- D. Total bilirubin
- E. AST activity

A 32-year-old patient suffering from chronic viral hepatitis complains about dull pain in the right subcostal area, nausea, dry mouth. Objectively: liver dimensions are 13-21-11 cm (according to Kurlöv), spleen is by 2 cm enlarged, aspartate aminotransferase is 3,2 micromole/l·h, alanine aminotransferase - 4,8 millimole/l·h. Serological study revealed HBeAg, high concentration of DNA HBV. What drug should be chosen for treatment of this patient?

- A. Acyclovir
- B. Remantadinum
- C. Arabinoside monophosphate
- D. α -interferon
- E. Essentiale-forte

Medical examination of a 19-year-old worker revealed generalized lymphadenopathy mainly affecting the posterior cervical, axillary and ulnar lymph nodes. There are multiple injection marks on the elbow bend skin. The man denies taking drugs, the presence of injection marks ascribes to influenza treatment. Blood count: RBCs - $3,2 \times 10^{12}/l$, Hb - 100 g/l, WBCs - $3 \times 10^9/l$, moderate lymphopenia. What study is required in the first place?

- A. Immunogram
- B. ELISA for HIV
- C. Sternal puncture
- D. X-ray of lungs
- E. Lymph node biopsy

HIV displays the highest tropism towards the following blood cells:

- A. T-suppressors
- B. T-killers
- C. T-helpers
- D. Thrombocytes
- E. Erythrocytes

A 10-year-old boy suffers from chronic viral hepatitis type B with maximal activity. What laboratory test can give the most precise characteristic of cytolysis degree?

- A. Weltman's coagulation test
- B. Takata-Ara test
- C. Transaminase test
- D. Prothrombin test
- E. Test for whole protein

A woman undergoing in-patient treatment for viral hepatitis type B developed headache, nausea, recurrent vomiting, memory lapses, flapping tremor of her hands, rapid pulse. Sweet smell from the mouth is detected. Body temperature is 37.6°C, heart rate is 80/min. What complication developed in the patient?

- A. Acute liver failure
- B. Ischemic stroke
- C. Meningoencephalitis
- D. Hypoglycemic shock
- E. Gastrointestinal haemorrhage

A 5-year-old child that contacts with viral hepatitis in the kindergartens presents with increased body temperature up to 38 °C, weakness, low appetite, single case of vomiting, dull pain in the subcostal area on the right. The child is provisionally diagnosed with viral hepatitis. What examination would be the most informative for diagnosis confirmation?

- A. ALT activity in blood
- B. Thymol turbidity test
- C. Blood analysis for stercobilin
- D. Blood test for bilirubin
- E. Urine analysis for bile pigments

A 60-year-old man presents with subcompensated viral liver cirrhosis (HCV Child-Pugh class B. What tactics should I chosen regarding the vaccination against influenza in this case?

- A. Contraindicated due to disease progress stage, as shown by Child-Pugh class
- B. Scheduled yearly vaccination
- C. In case of influenza outbreak
- D. Combined with antiviral drugs
- E. Contraindicated due to elderly age of patient

A healthy child 1 year and 5 month of age is being vaccinated against hepatitis B. The child did not receive the first dose the vaccine previously, while in the maternity hospital. The doctor makes an individual vaccination schedule for this child and planning the administration of the next dose the vaccine. What is the minimum interval between doses of vaccine in this case?

- A. 1 month
- B. 3 months
- C. 6 months
- D. 12 months
- E. 2 months

For a week a 42-year-old patient has been suffering from fever attacks followed by high temperature, which occur every 48 hours. Body temperature raises up to 40°C and decreases in 3-4 hours with excessive sweating. The patient presents with loss of appetite and general fatigue. The skin is pale and sallow. The liver and spleen are enlarged and dense on palpation. What method of diagnosis verification would be most efficient?

- A. Microscopy of blood smear and thick blood film
- B. Immune-enzyme assay
- C. Bacteriological analysis
- D. Microscopy of hanging blood drop
- E. Complete blood count

A 26-year-old woman has been undergoing treatment for community-acquired pneumonia for 10 days. It is known that her husband had been treated for drug addiction. Sequential intravenous administration of Amoksiklav (Amoxicillin+Clavunate) + Levofloxacin combination and vancomycin in the prescribed dosage was ineffective. Within the last two days the patient's dyspnea and intoxication acutely exacerbated, bilateral pulmonary infiltrates are observed. What is the most likely cause of the medication ineffectiveness?

- A. HIV infection and pneumocystic pneumonia
- B. Idiopathic fibrosing alveolitis
- C. Cancer metastases in the pulmonary tissues
- D. Infection with polyresistant bacterial strains
- E. Tuberculosis mycobacterium infection with development of tuberculosis

CHAPTER 4

5 days before, a 26-year-old female patient developed an acute condition. Objectively: marked headache, vomiting, weakness, poor appetite, temperature up to 39°C. Objectively: the patient is in a moderately grave condition, excited. The face is hyperaemic, sclerae are injected. The tongue is coated with brown fur. The trunk and limbs are covered with plentiful roseolous and petechial rash. Hepatosplenomegaly is present. Complement binding reaction with Rickettsia prowazekii is positive with the titer of 1:640. What drug should be administered?

- A. Chloramphenicol
- B. Doxycycline
- C. Penicillin
- D. Streptomycin
- E. Metronidazole

Six months ago, a 5-year-old child was operated for CHD. For the last 3 weeks, he has complained of fever, heart pain, aching muscles and bones. Examination results: "white-coffee" skin colour, auscultation revealed systolic murmur in the region of heart along with a noise in the III-IV intercostal space. Examination of fingertips revealed Janeway lesions. What is your provisional diagnosis?

- A. Sepsis
- B. Nonrheumatic carditis
- C. Infectious endocarditis
- D. Acute rheumatic fever
- E. Typhoid fever

A newborn has purulent discharges from the umbilical wound; the skin around the navel is swollen. The baby's skin is pale, with a yellow-gray tint, generalized haemorrhagic rash is present. What is the most likely diagnosis?

- A. Haemorrhagic disease of the newborn
- B. Haemolytic disease of the newborn
- C. Thrombocytopathy
- D. Omphalitis
- E. Sepsis

A patient operated for acute paraproctitis undergoes antibacterial and detoxification therapy, the local course of the disease has the positive dynamics. Since the

operation, the patient has had chills, pyrexia, tachycardia, euphoria for five days. The doctor suspected sepsis. What study will confirm the diagnosis?

- A. X-ray of lungs
- B. Liver ultrasound
- C. Determining the rate of microbial contamination of wound
- D. Blood culture for a pathogen
- E. Determining the rate of average-weight molecules

A 28-year-old patient was hospitalized with preliminary diagnosis "influenza". Roseolous-petechial rash appeared on the 5th day of disease on the trunk. The temperature is 41°C. Hyperaemia of face, reddening of scleras, and tremor of tongue, tachycardia, and splenomegaly are present. What is the most likely diagnosis?

- A. Measles
- B. Alcohol delirium
- C. Epidemic typhus
- D. Leptospirosis
- E. Typhoid fever

A 28-y.o. patient without permanent residence was admitted to the hospital with the preliminary diagnosis influenza. On the fifth day of illness, he got a maculopapular petechial rash on his body and internal surfaces of extremities. Body temperature is 41°C, euphoria, face hyperaemia, sclera reddening, tongue tremor, tachycardia, splenomegaly, excitement. What is the most probable diagnosis?

- A. Delirium alcoholicum
- B. Leptospirosis
- C. Measles
- D. Epidemic typhus
- E. Typhoid fever

A 23 year old female patient complains about periodical chill and body temperature rise up to 40°C, sense of heat taking turns with profuse sweating. The patient has had already 3 attacks that came once in two days and lasted 12 hours. She has lived in Africa for the last 2 months. Liver and spleen are enlarged. In blood: erythrocytes - $2,5 \times 10^{12}/l$. What is the most probable diagnosis?

- A. Malaria
- B. Spotted fever
- C. Sepsis
- D. Haemolytic anaemia
- E. Leptospirosis

The patient of 35 years old was hospitalized with the attacks of fever, which was accompanied by sweating and recurred every 4th day. OE: mild jaundise of sclera, pallor of skin, increase of liver on a 2 sm and its compression, increase of spleen on 5 sm. What research will verify the diagnosis?

- A. Microscopy of thick drop and smear of blood for a P. malaria
- B. Determination of level of bilirubin in the serum of blood
- C. the Biochemical blood test
- D. Research of activity of AlAt and AsAt
- E. Serological analysis of blood

A 40-year-old patient underwent an operation for a lumbar phlegmon. Body temperature rose again up to 38°C, he got intoxication symptoms, and there was an increase of leukocyte number in blood. The wound that was nearly free from necrotic tissues and full of granulations started to discharge pus, the granulations turned pale. What complication developed in this patient?

- A. Putrid phlegmon
- B. Erysipelas
- C. Allergic reaction
- D. Sepsis
- E. Erysipeloid

A 28-y.o. patient who has no permanent residence was admitted to the hospital with preliminary diagnosis "influenza", on the 5-th day of disease there are appeared maculopapular and petechial rash on his body and internal surfaces of his extremities. Body temperature is 41°C, euphoria, hyperaemic face, scleras reddening, tongue tremor, tachycardia, splenomegaly, excitement. What is the most probable diagnosis?

- A. Spotted fever
- B. Delirium alcoholicum
- C. Leptospirosis
- D. Measles
- E. Typhoid fever

A 27-year old patient with malaria caused by *P. falciparum* was treated with Chloroquine (600 mg base followed by 300 mg base in 6 hours, then 300 mg base a day for 2 days) without clinical and parasitological responses to the treatment. What is the most likely reason for the failure to respond to the therapy?

- A. Glucose-6-phosphate dehydrogenase deficiency in patient
- B. Chloroquine resistant strain of *P. falciparum*
- C. Late recognition of infection due to *P. falciparum*
- D. Inappropriate route of administration
- E. Hypersensitivity of the patient to Chloroquine

A 37-y.o. patient complains of pain in the right arm, which increases during motion, raised body temperature up to 39°C. In the right cubital fossa, there is a trace of injection, hyperaemia and thickening along the vein. Your diagnosis?

- A. Phlegmon
- B. Abscess
- C. Inflammation of lymph
- D. Erysipelas
- E. Phlebitis

A 40-y.o. patient of rheumatic heart disease complains of anorexia, weakness and loss of weight, breathless and swelling of feet. On examination: t° - 39°C, pulse is 100/min. Auscultation: diastolic murmur in the mitral area. Petechial lesion a round clavicle; spleen was palpable, tooth extraction one month ago.

- A. Recurrence of rheumatic fever
- B. Subacute bacteria endocarditis
- C. Thrombocytopenia purpure
- D. Mitral stenosis
- E. Aortic stenosis

A 34-year-old male visited Tajikistan. After return, he complains of fever up to 40°C which occurs every second day and is accompanied by chills, sweating. Hepatosplenomegaly is present. Blood test results: RBC - $3 \times 10^{12}/l$, Hb - 80 g/l, WBC - $4 \times 10^9/l$, eosinophils - 1%, stab neutrophils - 5%, segmented neutrophils - 60%, lymphocytes - 24%, monocytes - 10%, ESR - 25 mm/h. What is the provisional diagnosis?

- A. Infectious mononucleosis
- B. Sepsis
- C. Malaria
- D. Typhoid fever
- E. Leptospirosis

A patient with nosocomial pneumonia presents signs of collapse. Which of the following pneumonia complications is most likely to be accompanied by collapse?

- A. Exudative pleuritis
- B. Septic shock
- C. Bronchial obstruction
- D. Toxic hepatitis
- E. Emphysema

A 33-year-old man with a history of rheumatic fever complains of fever up to 38 – 39°C, abdominal pain, dyspnoea, tachycardia. Heart borders are displaced to the left by 2 cm, systolic and diastolic murmurs above aorta, BP of 160/30 mm Hg. Petechial rash occurs after measurement of blood pressure. Liver is enlarged by 3 cm, spleen is palpable. Urine is brown-yellow. What is the most likely diagnosis?

- A. Rheumatic fever
- B. Acute hepatitis
- C. Infectious endocarditis
- D. Acute nephritis
- E. Aortic regurgitation

A 47-year-old patient came to see a doctor on the 7th day of disease. The disease developed very fast: after the chill, body temperature rose up to 40°C and lasted up to 7 hours, and then it dropped abruptly, which caused profuse sweat. There were three such attacks occurring once in two days. Two days ago, the patient arrived from Africa. Objectively: pale skin, subicteric sclera, significantly enlarged liver and spleen. What is the cause of fever attacks in this disease?

- A. Tissue schizogony
- B. Exotoxin of a causative agent
- C. Erythrocytic schizogony
- D. Endotoxin of a causative agent
- E. Gametocytes

CHAPTER 5

A 37-y.o. patient who is at oligoanuretic stage of acute renal insufficiency has sensations of pricking in the mucous membrane of oral cavity and tongue, extremities numbness, reduced reflexes, respiratory disturbance, arrhythmia. What are these symptoms caused by?

- A. Hyponatremia

- B. Hyperazotemia
- C. Hyperkaliemia
- D. Acidosis
- E. Alkalosis

A 72-year-old male patient complains about itch in his left shin, especially around a trophic ulcer. Skin is reddened and oedematous; there are some oozing lesions, single yellowish crusts. The focus of affection is well-defined. What is the most likely diagnosis?

- A. Allergic dermatitis
- B. Seborrheic eczema
- C. Cutaneous tuberculosis
- D. Streptococcal impetigo
- E. Microbial eczema

On the 5th day after a surgery for colon injury a patient complains of bursting pain in the postoperative wound, weakness, drowsiness, headache, fever up to 40°C. Objectively: the skin around the wound is swollen; there is gas crepitation. The wound discharges are scarce foul smelling, of dark-grey colour. What is the most likely diagnosis?

- A. Abscess
- B. Postoperative wound infection
- C. Erysipelas
- D. Anaerobic clostridial wound infection
- E. Phlegmon

A 38-year-old male complains of tonic tension of the masticatory muscles, so that he cannot open his mouth. 12 days before, an unknown dog bit him. Objectively: there is pronounced tension and twitching of the masticatory muscles. What is the most likely diagnosis?

- A. Rabies
- B. Hysteria
- C. Tetanus
- D. Trigeminal neuralgia
- E. Apyretic tetanus

A 40-year-old patient was bitten by a stray dog an hour ago. On the left shin there is a bite mark - the wound is 4x2x0,5 cm. in size. What surgical aid would be most efficient in this case?

- A. Lavage with soapy water, retention sutures.
- B. Retention sutures.
- C. Salve dressing.
- D. Aseptic dressing.
- E. Blind suture.

A 16-year-old adolescent was vaccinated with DTP. In eight days, there was stiffness and pain in the joints, subfebrile temperature, urticarial skin eruption, enlargement of inguinal, cervical lymph nodes and spleen. What kind of allergic reaction is observed?

- A. Hypersensitivity of immediate type
- B. Immunocomplex
- C. Cytotoxic
- D. Hypersensitivity of delayed type
- E. Autoimmune

A 42-year-old builder consulted a doctor about a foot injury with a nail that he got in the morning of the same

day. The wound was washed with water. Three years ago, he was vaccinated against tetanus. Examination established satisfactory condition of the patient. The left foot was slightly oedematous, there was a stab wound on the sole. In order to prevent tetanus it is primarily required to:

- A. Give an intravenous injection of 1 ml of tetanus anatoxin, 3000 IU of antitetanus serum
- B. Give an intravenous injection of 3000 IU of antitetanus serum
- C. Give an intravenous injection of 0,5 ml of tetanus anatoxin
- D. Treat the wound with suds
- E. Administer a course of antibiotic therapy

An 11-year-old girl has been immunized according to her age and in compliance with the calendar dates. What vaccinations should the children receive at this age?

- A. Tuberculosis
- B. Polio
- C. Diphtheria and tetanus
- D. Hepatitis B
- E. Pertussis

15 minutes after the second vaccination with DTP vaccine a 4-month-old boy exhibited the symptoms of Quincke's oedema. What medication should be given for emergency aid?

- A. Heparin
- B. Adrenalin
- C. Prednisolone
- D. Furosemide
- E. Seduxen

A 15-year-old patient consulted a dermatologist about a painful lump in the armpit. Objectively: there is a walnut-sized node, lymphadenitis, infiltration of the surrounding tissues. The patient has been diagnosed with hidradenitis. What is the most likely causative agent of this disease?

- A. Streptococci
- B. Proteus vulgaris
- C. Pseudomonas aeruginosa
- D. Staphylococci
- E. Mixed infection

Three days ago a boy underwent removal of a foreign body from under a nail plate. 2 days later, he felt acute pulsating pain at the end of the nail bone, which was getting worse at pressing. Nail fold became hyperaemic; body temperature rose up to 37,5°C, there was a change in nail plate colour. What is the most likely diagnosis?

- A. Erysipelas
- B. Subungual paronychia
- C. Paronychia
- D. Erysipeloid
- E. Abscess

A 43-year-old female patient complains of eruption on her right leg skin, pain, weakness, body temperature rise up to 38°C. The disease is acute. Objectively: there is an oedema on the right leg skin in the region of foot, a well-defined bright red spot in form of flame tips which feels hot. There are isolated vesicles in focus. What is your provisional diagnosis?

- A. Microbial eczema
- B. Contact dermatitis

- C. Toxicoderma
- D. Erysipelas
- E. Haemorrhagic vasculitis

A farmer hurt his right foot during working in a field and came to the emergency station. He does not remember when he got last vaccination and he has never served in the army. Examination of his right foot revealed a contaminated wound up to 5-6 cm long with uneven edges. The further treatment tactics will be:

- A. To make an injection of tetanus anatoxin
- B. To make an injection of antitetanus serum
- C. Surgical debridement only
- D. To administer an antibiotic
- E. To make an injection of tetanus anatoxin and antitetanus serum

A 32-y.o. woman has the Lajeunesse's syndrome after taking the biceptol. What immunotrope medicines are to be prescribed in this situation?

- A. Non-specific immune modulators
- B. Specific immune modulators
- C. Interferons
- D. Steroid immunosuppressants
- F. Non-steroid immunosuppressants

On the 15-th day after a minor trauma of the right foot, a patient felt malaise, fatigability, irritability, headache, high body temperature, and feeling of compression, tension and muscular twitching of his right crus. What disease can it be?

- A. Anaerobic gas gangrene
- B. Erysipelas
- C. Tetanus
- D. Acute thrombophlebitis
- E. Thromboembolism of popliteal artery

A 40-year-old patient, the forester, complains of severe headache, body temperature rise up to 39,5°C, trembling limbs. From the patient's history, we know that he had seriously cut his hand during the dissection of a killed fox. Objectively: depressed mood. The patient asks not to turn on the light or open the door. Any noise causes apparent motor excitation. When he saw a carafe of water, he developed convulsive throat spasms. What tactics should an emergency doctor choose?

- A. Deliver the patient to the resuscitation department
- B. Deliver the patient to the neurological department
- C. Deliver the patient to the infectious disease hospital
- D. Deliver the patient to the psychiatric hospital
- E. Let him stay at home and consult a psychiatrist

A 12-y.o. girl took 2 pills of aspirine and 4 hours later her body temperature raised up to 39-40°C. She complains of general indisposition, dizziness, sudden rash in form of red spots and blisters. Objectively: skin lesions resemble of second-degree burns, here and there with erosive surface or epidermis peeling. Nikolsky's symptom is positive. What is the most probable diagnosis?

- A. Pemphigus vulgaris
- B. Polymorphous exudative erythema

- C. Acute epidermal necrolysis
- D. Bullous dermatitis
- E. Duhring's disease

A 49-year-old countryman got an itching papule on the dorsum of his right hand. In the centre, there is a vesicle with serosanguinous exudate. Within the next 2 days, the patient developed a painless oedema of hand and forearm. On the 4th day, the temperature rose to 38,5°C, in the right axillary region a large painful lymph node was found. One day before the onset of the disease, the patient had examined a dead calf. What is the most likely diagnosis?

- A. Bubonic plague
- B. Cutaneous anthrax
- C. Carbuncle
- D. Lymphocutaneous tularaemia
- E. Erysipelas

A 65-y.o. woman complains of complicated mouth opening following foot trauma 10 days ago. Next day she ate with difficulties, there were muscles tension of back, the back of the head and abdomen. On the third day, there was tension of all muscle groups, generalized convulsions every 10-15 min. What is the most probable diagnosis?

- A. Tetania
- B. Meningoencephalitis
- C. Haemorrhagic stroke
- D. Epilepsy
- E. Tetanus

A 34-y.o. patient 3 hours ago was bitten by a dog. He has a non-bleeding wound in his left arm caused by the dog's bite. What surgical care would you provide to the patient?

- A. Aseptic bandage
- B. Cream bandage
- C. Wound bathing with detergent water and antiseptic application
- D. Complete suturing of the wound
- E. Incomplete suturing of the wound

A 7-y.o. boy has crampy abdominal pain and a rash on the back of his legs and buttocks as well as on the extensor surfaces of his forearms. Laboratory analysis reveals proteinuria and microhaematuria. He is most likely to be affected by:

- A. Systemic lupus erythematosus
- B. Anaphylactoid purpura
- C. Poststreptococcal glomerulonephritis
- D. Polyarteritis nodosa
- E. Dermatomyositis

Body temperature of a 12-y.o. girl increased up to 39-40°C in 4-5 hours after she had taken 2 pills of aspirin. Complaints of general discomfort, dizziness, sudden appearance of red spots on the skin with blister formation or exfoliation of the epidermis with erosive surface. Lesions on the skin looked like burns of II degree. Nikolsky syndrome is positive. What is the most probable diagnosis?

- A. Pemphigus vulgaris
- B. Polymorphic exudative erythema
- C. Acute epidermal necrolysis
- D. Bullous dermatitis
- E. Duhring's disease

A 45-year-old patient, a sailor, was hospitalized on the 2nd day of the disease. A week ago, he returned from India. Complaints of body temperature of 41°C, severe headache, dyspnoea, and cough with frothy rusty sputum. Objectively: the patient is pale, mucous membranes are cyanotic, breathing rate is 24/min, and tachycardia is present. In lungs: diminished breath sounds, moist rales over both lungs, crepitation. What is the most likely diagnosis?

- A. Miliary tuberculosis
- B. Influenza
- C. Pneumonic plague
- D. Ornithosis
- E. Sepsis

A 33-year-old patient was delivered to the infectious diseases department on the 7-th day of disease. He complained about great weakness, high temperature, pain in the lumbar area and leg muscles, icteritiousness, dark colour of urine, headache. The acute disease started with chill, body temperature rise up to 40°C, headache, pain in the lumbar area and sural muscles. Icterus turned up on the 4th day, nasal and scleral haemorrhages came on the 5th day. Fever has lasted for 6 days. Diuresis - 200 ml. What is the most probable diagnosis?

- A. Typhoid fever
- B. Virus A hepatitis
- C. Leptospirosis
- D. Sepsis
- E. Yersiniosis

A patient complains of skin painfulness and redness of the right gastrocnemius muscle. Objectively: body temperature is 38,5°C, enlarged and painful inguinal lymph nodes on the right. Skin of extremity is oedematous, hyperaemic, covered with eruption in form of vesicles containing dark fluid; its palpation is painful. There is distinct border between normal and hyperaemic skin. What is the most probable diagnosis?

- A. Anthrax, dermal form
- B. Herpetic infection
- C. Chickenpox
- D. Crus phlegmon
- E. Erysipelas, haemorrhagic form

A 45-year-old patient complains of fever up to 40°C, general weakness, headache and spasmodic contraction of muscles in the region of a shin wound. The patient got injured five days ago when tilling soil and did not seek medical attention. What kind of wound infection can be suspected?

- A. Anthrax
- B. Erysipelas
- C. Tetanus
- D. Gram-positive
- E. Gram-negative

A 3-year-old child with ARVI had been administered bisepitol, paracetamol, nazoferon. On the third day of treatment the baby's condition deteriorated: he developed sore throat, stomatitis, conjunctivitis, hyper salivation, painful dark red spots on the neck, face, chest and legs, then the spots were replaced with vesicles. Examination revealed lesions of mucous membranes

around the mouth and anus. What is your provisional diagnosis?

- A. Atopic dermatitis
- B. Stevens-Johnson syndrome
- C. Chickenpox
- D. Serum sickness
- E. Bullous dermatitis

A patient has pain in the axillary area, rise of temperature developed 10 hours ago. On examination: shaky gait is evident; the tongue is coated with white deposit. The pulse is frequent. The painful lymphatic nodes are revealed in the axillary area. The skin over the lymph nodes is erythematous and glistening. What is the most probable diagnosis?

- A. Acute purulent lymphadenitis
- B. Lymphogranulomatosis
- C. Bubonic plague
- D. Anthrax
- E. Tularaemia

A 43-year-old patient was admitted to the infectious diseases hospital with high body temperature and intense headache. The illness has lasted for 2 days. Examination revealed a carbuncle on his forearm. The area around it was apparently oedematous and slightly painful. Regional lymphadenitis and hepatolienal syndrome were also present. It is known from the anamnesis that the patient works at a cattle-breeding farm. What disease should be suspected in the first place?

- A. Erysipelas
- B. Erysipeloid
- C. Anthrax
- D. Skin cancer
- E. Eczema

A patient was admitted to the hospital on the 7th day of the disease with complaints of high temperature, headache, pain in the muscles, especially in calf muscles. Dermal integuments and sclera are icteric. There is haemorrhagic rash on the skin. Urine is bloody. The patient was fishing two weeks ago. What is the most likely diagnosis?

- A. Yersiniosis
- B. Salmonellosis
- C. Brucellosis
- D. Leptospirosis
- E. Trichinellosis

3 year old child with ARVI was prescribed with In byseptol, paracetamol and nazopheron. On the third day the condition of child deteriorated: a sore throat appeared, stomatitis, conjunctivitis, hypersalivation, sickly spots of crimson color on a neck, face, chest and extremities, then bubbles appeared in place of spots. Affection of mucous membranes was marked around mouth and anus. What is preliminary diagnosis?

- A Stevens-Johnson Syndrome
- B Atopical dermatitis
- C Bullous dermatitis
- D Chicken-pox
- E Serum illness

40 y.o. patient was hour ago bitten by an unknown dog. On the left shin track of bite is a wound 4 x 2 x 0,5 sm.

in size of. What surgical aid is expedient in this case?

- A Proceeding of wound by a soapy water, provisional surgical sutures on a wound
- B Provisional surgical sutures on a wound
- C Blind surgical sutures on a wound
- D Aseptic bandage
- E Salve dressing

The dermatologist has an appointment with a 30-year-old man that complains of severely itching rashes that especially disturb him at night. The rashes developed 2 weeks ago, after he had returned from a travel. Objectively on the lateral surfaces of his fingers, hands, wrists, elbows, lower abdomen, genitals, and thighs there are paired papulovesicles, single pustules, and scratch marks. What disease can be suspected?

- A. Scabies
- B. Pyoderma
- C. Eczema
- D. Dermatitis
- E. Shingles

A 16-year-old adolescent living in a rural area has been bitten in the shin by a stray dog. The wound is superficial. Regular vaccination against tetanus was received 3 months ago. What treatment tactics would be the most advisable in this case?

- A. Antirabies vaccination
- B. Antitetanus immunoglobulin
- C. Antitetanus serum
- D. Antirabies immunoglobulin
- E. Tetanus toxoid adsorbed

A 25-year-old patient was delivered to an infectious diseases unit on the 3rd day of illness with complaints of headache, pain in lumbar spine and gastrocnemius muscles, high fever, chill. Objectively: condition of moderate severity. Sclera are icteric. Pharynx is hyperaemic. Tongue is dry with dry brown coating. Abdomen is distended. Liver is enlarged by 2 cm. Spleen is not enlarged. Palpation of muscles, especially gastrocnemius muscles, is painful. Urine is dark in colour. Stool is normal in colour. The most likely diagnosis is:

- A. Leptospirosis
- B. Viral hepatitis type A
- C. Yersiniosis
- D. Infectious mononucleosis
- E. Malaria

A 22-year-old woman complains of itching and profuse discharge from her genital tracts. The condition developed 10 days ago after a sexual contact. Bacterioscopy of a discharge sample detected trichomonads. What drug should be prescribed for treatment in this case?

- A. Metronidazole
- B. Valcyclovir
- C. Ampicillin
- D. Zovirax (Acyclovir)
- E. Erythromycin

A 35-year-old patient has been suffering from an illness for 3 days. 5 days ago he returned from a trip to Africa. The onset of disease was accompanied by fever up to

40°C, chills, acute headache, myalgia. In the axillary region the lymph node enlarged up to 3x6 cm can be palpated. The lymph node is dense, intensely painful, slightly mobile, without clear margins; the skin over the node is hyperemic and tight. Tachycardia is present. Make the preliminary diagnosis:

- A. Plague
- B. Anthrax
- C. Sepsis
- D. Tularemia
- E. Lymphadenitis

A 46-year-old man came to the surgeon's office. He complains of twitching sensation in the wound on his left foot, insomnia, and anxiety. According to the patient, he received this wound 5 days ago, when he accidentally stepped on a glass shard, while on the beach. He requested no medical assistance. Objectively the patient's general condition is satisfactory, pulse is 75/min., blood pressure is 130/80 mm Hg, temperature is 36.9°C. On the plantar surface of his foot there is a wound 1.5 cm long and up to 3 cm deep. The wound edges are moderately hyperaemic, no discharge from the wound is observed. What disease can be suspected in this patient?

- A. Tetanus
- B. Fasciitis
- C. Diphtheria
- D. Anthrax
- E. Phlegmon

A 17-year-old girl has made an appointment with the doctor. She plans to begin her sex life. No signs of gynaecological pathology were detected. In the family history there was a case of cervical cancer that occurred to the patient's grandmother. The patient was consulted about the maintenance of her reproductive health. What recommendation will be the most helpful for prevention of invasive cervical cancer?

- A. Vaccination against human papillomavirus (HPV)
- B. Timely treatment of sexually transmitted diseases
- C. Immunomodulators
- D. Antiviral and antibacterial drugs
- E. Vitamins, calcium, omega-3

A 45-year-old veterinary worker has made an appointment with the doctor for regular examination. In his duties he frequently deals with animals, however he denies working with rabies-affected animals. Previously he has received no antirabic vaccination. What should the doctor recommend in this case?

- A. Preventive immunization with antirabic vaccine
- B. Vaccination in case of contact with sick animal
- C. Preventive immunization with rabies immunoglobulin
- D. Preventive immunization with anti-rabies serum
- E. Administration of antirabic vaccine and rabies immunoglobulin

A 20-year-old student was brought to the first-aid center. He has a closed fracture of the left forearm and a contused lacerated wound on his left shin. After the patient received initial wound management, he presented the documents confirming that he has received all the necessary preventive vaccination as scheduled. What should the doctor do to prevent tetanus in this patient?

- A. Dynamic case monitoring
- B. Administration of anti-tetanus serum
- C. Administration of tetanus toxoid
- D. Antibiotic therapy
- E. Administration of tetanus immunoglobulin

Навчальне видання

WORKBOOK
FOR PRACTICAL STUDIES
ON THE COURSE OF INFECTIOUS DISEASES
for the foreign faculty students
of the V year of education

РОБОЧИЙ ЗОШИТ
ДЛЯ ПРАКТИЧНИХ ЗАНЯТЬ
З КУРСУ ІНФЕКЦІЙНИХ ХВОРОБ
для студентів 5 курсу факультетів з підготовки іноземних студентів

За загальною редакцією проф. Козько В.М.

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