

THE MINISTRY OF HEALTH PROTECTION OF UKRAINE

ODESSA NATIONAL MEDICAL UNIVERSITY

Department of infectious diseases with a course of dermatovenereology



APPROVED

vice-rector for scientific and pedagogical work.

Eduard BURIACHKIVSKYI

20.12.25 p.

METHODOLOGICAL RECOMMENDATIONS

FOR PRACTICAL CLASSES

IN THE ACADEMIC DISCIPLINE

ACADEMIC DISCIPLINE

Infectious diseases

6 year

Level of higher education: second (master's)

Field of knowledge: 22 "Health care"

Specialty: 222 "Medicine"

Educational and professional program: Medicine

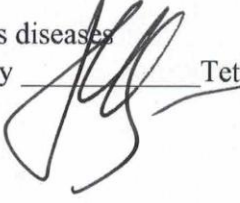
Approved:

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

Odessa National Medical University

Protocol No. 1 of 29.08.2025

Head of the department of infectious diseases

with a course of dermatovenereology  Tetiana CHABAN

Teacher(s)

Chaban T.V. PhD. Doctor of Sciences, professor, head of the department.

Associate professors: candidate of medical science Usychenko K.M., Pavlenko O.V.,

Gerasymenko O.A., N.V. Movlyanova

Assistants: Verba N.V., Bocharov V.M.

Practical lesson № 1.

Topic: "The general characteristics of zoonotic infections." - 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of zoonotic infections; formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts: zoonotic infections.

Equipment: illustrative material, tables, thematic patients

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education may know the answers to the questions to control the reference level of knowledge.
 - What is the etiology of zoonotic infections?
 - What are the epidemiological features of zoonotic infections?
 - What are the main clinical symptoms and syndromes of zoonotic infections?
 - What are the complications of zoonotic infections?
 - What are the specific methods of diagnosis zoonotic infections?
 - What are the main principles of treatment of zoonotic infections?
3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education may be able:

- to communicate with a patient with zoonotic infections, collect complaints, life and disease history, epidemiological history, conduct a survey of organs and systems;
- to perform a physical examination of a patient with zoonotic infections and determining the main symptoms of the disease;
- to analyze the results of laboratory, functional and instrumental studies of a patient with zoonotic infections;
- to perform differential diagnosis and substantiate the clinical diagnosis of a patient with zoonotic infections;
- to determine the nature and principles of treatment of a patient with leptospirosis (hemorrhagic fever with renal syndrome, Congo-Crimea hemorrhagic fever) zoonotic infections on the basis of a previous clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- to determine of measures for primary and secondary prevention of zoonotic infections;
- to keep medical records of a patient with zoonotic infections;
- to make a report on the results of the examination of a patient for zoonotic infections by a team of students in the study group, an analysis under the guidance of the teacher of the correctness of the diagnosis, differential diagnosis, scope of the prescribed examination, treatment tactics, assessment of the prognosis and work capacity.

Materials for the final stage of the practical class

Situational tasks 1.

The patient was admitted to the infectious hospital on the 7th day of the disease with complaints of high temperature, headache, pain in the muscles, especially in calf muscles. The dermal integuments and scleras are icteric. There is hemorrhagic rash on the skin. Urine is bloody. The patient went fishing two weeks ago.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

Situational tasks 2.

The patient M. of 32 years old, is inhabitant of the Alushta. He fell ill acutely: the temperature increased up to 39,0°C. The chill, myalgia, arthralgia, headache, pain in the loin developed. Hyperemia of the face and neck, irritation, bradycardia were marked. The rash on the lateral surfaces of the body, the bleeding from the nose, melena developed in 3 days. The liver is enlarged. The patient was out of the town on rest a week ago and found ticks on the clothes.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

Situational tasks 3.

The patient K. of 46 years old fell ill acutely with increase of the temperature up to 39,6°C, headache. The pains in the loin, positive Pasternatsky's symptom developed. Then there were vomiting, nasal bleeding, oliguria. Urine has a meat color. Polyuria developed in 7 days (to 5-7 liters per day).

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубовської. К.: ВСВ «Медицина», 2018. –с. 339-358
2. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary WKOzarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

1. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et all]. – New York. - 2017. – P. 876-898.
2. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.
3. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

1. www.who.int- World Health Organization
2. www.ama-assn.org–American Medical Association /American Medical Association
3. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
4. <http://bma.org.uk>– British Medical Association
5. www.gmc-uk.org- General Medical Council (GMC)

6. www.bundesaerztekammer.de– German Medical Association
7. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical lesson №2.

Topic: "Plague. Anthrax." - 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of anthrax (plague); formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts: anthrax, plague.

Equipment: illustrative material, tables, thematic patients

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education may know the answers to the questions to control the reference level of knowledge.
 - What is the etiology of anthrax?
 - What is the geographical distribution of anthrax?
 - What are the main epidemiological patterns of this anthrax?
 - What are the links of the pathogenesis of anthrax?
 - What are the characteristic manifestations of anthrax?
 - What are the methods of diagnosing this disease?
 - What are the principles of treatment of anthrax?
 - What are the directions of non-specific and specific prevention of anthrax?
 - What is the etiology of plague?
 - What are the main epidemiological patterns of plague?
 - What are the links of the pathogenesis of plague?
 - What are the characteristic manifestations of plague?
 - What methods of diagnosis are necessary in case of this disease?
 - What are the principles of treatment of plague?
 - What are the directions of prevention of plague?
3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education may be able:

- to communicate with an anthrax patient, collect complaints, life and disease history, epidemiological history, conduct a survey of organs and systems;
- to perform a physical examination of an anthrax patient and determining the main symptoms of the disease;
- to analyze the results of laboratory, functional and instrumental studies of a patient with anthrax (plague);
- to perform differential diagnosis and justify the clinical diagnosis of a patient with anthrax (plague);

- to determine the nature and principles of treatment of a patient with anthrax (rabies) on the basis of a previous clinical diagnosis, observing relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- to determine of measures of primary and secondary prevention of anthrax (plague);
- to keep medical documentation of a patient with anthrax (plague);
- to make a report on the results of the examination of a patient with anthrax (plague) by a team of students in the study group, an analysis under the guidance of the teacher of the correctness of the diagnosis, differential diagnosis, the scope of the prescribed examination, treatment tactics, assessment of prognosis and work capacity.

Materials for the final stage of the practical class

Situational task No. 1

The patient of 40 years old complains of general weakness, increased temperature, headache, injuries on the hands. There are black ulcers on the skin of the hands, which are covered with black crust with edema of the soft tissues. Edema is painless on palpation. The patient was in contact with a sick cow. He fell ill 3 day ago.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task #2

A 50-year-old patient, a veterinary doctor, came to the polyclinic with complaints of an increase in temperature to 38.5°C, a headache, pronounced painless swelling in the back of the left hand, and the presence of an ulcer with a black crust. Two days before the illness, he injured his hand at work.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task #3

A pain in the axillary area, increase of the temperature developed 10 hours ago in the patient . On examination: shaky gait is marked. The tongue is coated by white fur, dry. The pulse is frequent, of average filling. The painful lymphatic nodules without clean contours are determined in the axillary area. The skin is bloodshot, glistening above the lymphatic nodules.

- 1.** What is the preliminary diagnosis?
- 2.** What are the methods of diagnostics?
- 3.** What etiotropic and pathogenetic therapy should be administered?

Situational task #4

Patient V., 45 years old, was hospitalized a day after the onset of the disease with complaints of high temperature up to 40°C, severe headache, shortness of breath, cough with frothy liquid rusty sputum. He came from India a week ago. Objectively: pale, cyanosis of mucous membranes, frequency of respiratory movements 24 per 1 min., tachycardia. Breathing in the lungs is weakened, single wet wheezes, crepitations are heard. The tones are muffled.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

- 5.** List of recommended literature (main, additional, electronic information resources):

Main:

1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубоської. К.: ВСВ «Медицина», 2018. –с. 339-358
2. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary W Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

1. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et all]. – New York. - 2017. – P. 876-898.
2. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.
3. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

1. www.who.int- World Health Organization
2. www.ama-assn.org–American Medical Association /American Medical Association
3. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
4. <http://bma.org.uk>– British Medical Association
5. www.gmc-uk.org- General Medical Council (GMC)
6. www.bundesaerztekammer.de– German Medical Association
7. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical lesson №3.

Topic: "Brucellosis. Tularemia." - 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of tularemia (brucellosis); formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts: brucellosis, Maltese fever, tularemia, rabbit plague.

Equipment: illustrative material, tables, thematic patients

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education may know the answers to the questions to control the reference level of knowledge.
 - What is the etiology of brucellosis?
 - What is the geographical distribution of brucellosis?
 - What are the main epidemiological patterns of this disease?
 - What are the links of the pathogenesis of brucellosis?
 - What are the stages of the clinical picture of brucellosis and the characteristic manifestations?
 - What are the methods of diagnosing this disease?
 - What are the principles of brucellosis treatment?
 - What are the directions of non-specific and specific prevention of brucellosis?
 - What is the etiology of tularemia?
 - What is the geographical distribution of tularemia?
 - What are the main epidemiological patterns of this disease?
 - What are the links of the pathogenesis of tularemia?
 - What are the stages of the clinical picture of tularemia and the characteristic manifestations?
 - What are the methods of diagnosing this disease?
 - What are the principles of tularemia treatment?
 - What are the directions of non-specific and specific prevention of tularemia?
3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education may be able:

- to communicate with a brucellosis (tularemia) patient, collect complaints, life and disease history, epidemiological history, conduct a survey of organs and systems;
- to perform a physical examination of a patient with brucellosis (tularemia) and determining the main symptoms of the disease;
- to analyze the results of laboratory, functional and instrumental studies of a patient with brucellosis (tularemia);

- to perform differential diagnosis and substantiate the clinical diagnosis of a patient with brucellosis (tularemia);
- to determine the nature and principles of treatment of a patient with brucellosis (tularemia) on the basis of a previous clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- determination of measures for primary and secondary prevention of brucellosis (tularemia);
- to keep medical documentation of a patient with brucellosis (tularemia);
- to make a report on the results of the examination of a patient for brucellosis (tularemia) by a team of students in the study group, an analysis under the guidance of the teacher of the correctness of the diagnosis, differential diagnosis, the scope of the prescribed examination, treatment tactics, assessment of the prognosis and work capacity.

Materials for the final stage of the practical class

Situational task #1

The patient K. of 43 years, is a cattle-breeder. He was admitted to the hospital with complaints of chill, high temperature, weakness, plentiful profuse sweat at night, pain in the area of joints. He has been sick for 20 days. He had a high temperature during all days. On examination: orchitis, edema of the joints, enlarged liver and spleen, icteric scleras are revealed.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task #2

The patient of 24 years old complains of headache, sweating, pains in muscles, joints, loin, dull pain in the scrotum. He has been sick for 3 weeks. The patient is a worker of the sheepfarm. He drinks unboiled milk. There is hepatosplenomegaly. In a hemogram a relative lymphocytosis is marked. Wright's reaction is positive.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task #3

A housewife wounded the thumb of the hand. Pustule developed and then ulcer was formed. At the site of the wound on the 3rd day. The temperature increased to 39°C. Hyperemia of the face general weakness, intensive muscular pains developed at different places. The lymphatic nodules increased in axillary area were enlarged to the size of chicken's egg, slightly painful, without periadenitis. The skin is not changed above them.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 4.

Some cases of the disease developed among seasonal agricultural workers, using water reservoir where accumulation of the rodents was marked. The disease was accompanied by high temperature, hyperemia of the face, one-sided necrotic tonsillitis with dirty-grey fur, pains on swallowing. Enlarged painless lymphatic nodules arisen near the angle of the mandible, in other cases on the lateral part of the neck and in the supraclavicular area.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубоської. К.: ВСВ «Медицина», 2018. –с. 339-358
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Additional:

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3. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

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4. <http://bma.org.uk>– British Medical Association
5. www.gmc-uk.org- General Medical Council (GMC)
6. www.bundesaerztekammer.de– German Medical Association
7. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical lesson №4.

Topic: "Rabies" - 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of rabies; formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts: rabies, emergency rabies prevention.

Equipment: illustrative material, tables, thematic patients

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education may know the answers to the questions to control the reference level of knowledge.
 - What is the etiology of rabies?
 - What are the main epidemiological patterns of this disease?
 - What are the links of the pathogenesis of rabies?
 - What are the stages of the clinical picture of rabies and the characteristic manifestations?
 - What are the available methods of diagnosis of this disease?
 - What symptomatic drugs are used in the treatment of rabies?
 - Is it possible to prescribe antiviral drugs?
 - What are the basics of rabies prevention, criteria for the belonging of bite cases to specific categories of contact according to WHO recommendations, unconditional and conditional indications for vaccination.
3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

Materials for the final stage of the practical class

An applicant of higher education may be able:

- communicate with a rabies patient (if possible) or with relatives, collect complaints, anamnesis of life and disease, epidemiological anamnesis, conducting a survey of organs and systems;
- conducting a physical examination of a patient with rabies and determining the main symptoms of the disease;
- to analyze the results of laboratory, functional and instrumental studies of a patient with rabies;
- carry out differential diagnosis and justify the clinical diagnosis of a patient with rabies;
- determine the nature and principles of treatment of a patient with rabies on the basis of a previous clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- determination of measures for primary and secondary prevention of rabies;
- keep medical records of a patient with rabies;
- make a report on the results of the examination of a patient with rabies by a team of students in the study group, an analysis under the guidance of the teacher of the correctness of the diagnosis, differential diagnosis, the scope of the prescribed examination, treatment tactics, assessment of prognosis and work capacity.

Materials for the final stage of the practical class

Situational task 1.

Patient V., 18 years old, a technical college student, was taken to a psychiatric hospital on August 28 with the diagnosis: "Acute psychosis? Alcoholic delirium? ". Sick on the 3rd day: anxiety, irritability, leg pain, temperature 37.5°C, bad sleep appeared. Today, the condition worsened: difficulty breathing ("spasms"), abundant salivation, swallowing disorder, sudden excitability, and a feeling of fear appeared. On examination: restless, not quite adequate, shuddering from touches and loud sounds, with the development of spasms of breathing and swallowing. When trying to drink water from a glass, a spasm of the neck muscles occurs. The pupils are dilated, the eyes wander. Blood pressure 100 / 50 mmHg, pulse 130 bpm, temperature 38.6°C. Breathing rate up to 38 in 1 minute. had no contact with infectious patients. There was a dog at home, which died of "distemper" in July. He did not consult a doctor.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

Situational task 2.

Husband V., 20 years old, was admitted to the hospital on the second day of illness with complaints of general weakness, dizziness, drooling, pain in the muscles of the shoulder girdle. I became acutely ill: this morning during breakfast, difficulty in swallowing, dizziness appeared. Sent by an emergency doctor to the hospital. Objectively: the condition is of moderate severity, the temperature is 37.2 ° C. The face is hyperemic. Excited, talkative, afraid of death. There is no rash. He cannot drink water, as spasms of the muscles of the pharynx appear. Profuse salivation. Vesicular breathing in the lungs. AD-120/80 mm Hg. art., pulse 100 beats. in min. Abdomen is painless. There are no meningeal symptoms. History: caught a wolf in the spring, skinned it myself, got injured. Everyone is healthy at home.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

1. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубовської. К.: ВСВ «Медицина», 2018. –с. 339-358
2. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary WKOzarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

1. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et all]. – New York. - 2017. – P. 876-898.
2. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.
3. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

1. www.who.int- World Health Organization

2. www.ama-assn.org–American Medical Association /American Medical Association
3. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
4. <http://bma.org.uk>– British Medical Association
5. www.gmc-uk.org- General Medical Council (GMC)
6. www.bundesaerztekammer.de– German Medical Association
7. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical lesson №5.

Topic: "Especially dangerous diseases. The concept of biosafety. Hemorrhagic fevers: Ebola, Lassa, Marburg." - 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of especially dangerous infections (hemorrhagic fevers Lassa, Ebola, Marburg); formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts: especially dangerous infections, hemorrhagic fevers of Lassa, Ebola, Marburg.

Equipment: illustrative material, tables, thematic patients

Plan:

1. Organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education may know the answers to the questions to control the reference level of knowledge.
 - What is the classification of especially dangerous infections according to the WHO?
 - What is the etiology of hemorrhagic fevers of Lassa, Ebola, Marburg?
 - What are the main epidemiological patterns of these diseases?
 - What are the links in the pathogenesis of Lassa, Ebola, and Marburg hemorrhagic fevers?
 - What are the characteristic manifestations of hemorrhagic fevers of Lassa, Ebola, Marburg?
 - What are the methods of diagnosing these diseases?
 - What drugs are used in the treatment of hemorrhagic fevers of Lassa, Ebola, Marburg?
 - What are the directions of prevention of hemorrhagic fevers of Lassa, Ebola, Marburg?
3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education may be able:

- to communicate with a patient with especially dangerous infections, collect complaints, life and disease history, epidemiological history, conduct a survey of organs and systems;
- to perform a physical examination of a patient with especially dangerous infections and determining the main symptoms of the disease;
- to analyze the results of laboratory and instrumental investigations of a patient with especially dangerous infections;
- to perform differential diagnosis and substantiate the clinical diagnosis of a patient with especially dangerous infections;
- to determine principles of treatment of a patient with especially dangerous infections on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- to determine of measures to prevention of especially dangerous infections (measures in the foci), rules for the use of protective clothes;
- to keep medical records of a patient with especially dangerous infections;

- to make a report on the results of the examination of a patient with a particularly dangerous disease by a team of students in the study group, an analysis under the guidance of the teacher of the correctness of establishing the diagnosis, differential diagnosis, the scope of the prescribed examination, treatment tactics, assessment of prognosis and work capacity.

Materials for the final stage of the practical class

Situational task 1.

A military serviceman serving under contract in the radio engineering troops in the mountains of Brazil was brought to the hospital on the 5th day of illness in an extremely serious condition with a diagnosis of ARVI, allergic dermatitis? The disease began acutely with general weakness, headache, chills, nausea, arthralgias and myalgias, and an increase in body temperature up to 40 °C. About: the condition is serious, the patient is delirious, the level of consciousness is low. Meningeal signs are weakly positive. The face is hyperemic, hemorrhage in the transitional fold of the conjunctiva, nose and gum bleeding. Hemorrhagic rashes on the skin of the trunk, upper and lower limbs, hematomas at the injection sites. Hepatolienal syndrome. When auscultating over the lungs, crepitus and moist rales. Shortness of breath 34 per minute. Pronounced acrocyanosis. Tachycardia, R-112 per minute. Systolic murmur, accent of the second tone on a. steering wheel A/T 85/60.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

Situational task 2.

The patient, citizen of Sudan, complaints of increase of the temperature up to 39-40°C, pains in the muscles, headache, epistaxis, bloody vomiting. He fell ill acutely 4 days ago. The chill developed. The temperature increased up to 40°C. Objectively: the condition of the patient is severe. The dermal integuments are moderately icteric. The sclerae are injected. There is hemorrhagic rash on the skin of the trunk – petechias, echimoses. The peripheral lymphatic nodules are not palpated. The pulse rate is 78 beats per minute, rhythmical. Heart sounds are muffled. The arterial pressure is 100/60 mm Hg. The lungs are without peculiarities. The abdomen is soft, painless on palpation. The liver is below rib arch by 2 cm, painful. The spleen is not palpated. Diuresis is decreased. Meningeal signs are not determined.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубовської. К.: ВСВ «Медицина», 2018. –с. 339-358
2. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary WKOzarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

1. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et al]. – New York. - 2017. – P. 876-898.
2. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.
3. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

1. www.who.int- World Health Organization
2. www.ama-assn.org–American Medical Association /American Medical Association
3. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
4. <http://bma.org.uk>– British Medical Association
5. www.gmc-uk.org- General Medical Council (GMC)
6. www.bundesaerztekammer.de– German Medical Association
7. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical lesson №6

Topic: "Natural and monkey pox" - 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of especially dangerous diseases (smallpox, monkeypox); formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts: especially dangerous infections, smallpox, monkeypox.

Equipment: illustrative material, tables, thematic patients

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education may know the answers to the questions to control the reference level of knowledge.
 - What is the classification of especially dangerous infections according to the WHO?
 - What is the etiology of monkeypox and natural pox?
 - What are the main epidemiological features of these diseases?
 - What are the links of the pathogenesis of monkeypox and natural pox?
 - What are the clinical manifestations of monkeypox and natural pox?
 - What are the methods of diagnosis these diseases?
 - What drugs are used in the treatment of monkeypox and natural pox?
 - What are the directions of prevention of monkeypox and natural pox?
3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education may be able:

- to communicate with a patient with a especially dangerous infections, collect complaints, life and disease history, epidemiological history, conduct a survey of organs and systems;
- to perform a physical examination of a patient with a especially dangerous infections and determining the main symptoms of the disease;
- to analyze the results of laboratory, functional and instrumental studies of a patient with especially dangerous infections;
- to perform differential diagnosis and substantiate the clinical diagnosis of a patient with especially dangerous infections;
- to determine the nature and principles of treatment of a patient with especially dangerous infections on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- to determine of measures to prevent especially dangerous infections (measures in the cell), as well as rules for the use of protective clothing;
- to keep medical records of a patient with especially dangerous infections;
- to make a report on the results of the examination of a patient with especially dangerous infections by a team of students in the study group, an analysis under the guidance of the

teacher of the correctness of establishing the diagnosis, differential diagnosis, the scope of the prescribed examination, treatment tactics, assessment of prognosis and work capacity.

Materials for the final stage of the practical class

Situational task #1

The patient returned from Benin 10 days ago. From a history it is known that the patient is practicing sexual intercourse with men. He was hospitalized to an infectious hospital on 2nd day of the disease with complaints of high temperature up to 40°C, headache, weakness, dyspnea, pain in the throat. Objective: On the skin of the whole body and on the mucous membranes, conjunctive red maculo-papula rash 8-10 mm in diameter is marked. All groups of lymphatic nodes are enlarged.

1. What is the preliminary diagnosis?
2. What methods of the laboratory diagnostics are necessary to perform for confirmation of diagnosis?
3. What is the main method of the treatment?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубовської. К.: ВСВ «Медицина», 2018. –с. 339-358
2. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary W Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

1. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et al]. – New York. - 2017. – P. 876-898.
2. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.
3. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

1. www.who.int- World Health Organization
2. www.ama-assn.org–American Medical Association /American Medical Association
3. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
4. <http://bma.org.uk>– British Medical Association
5. www.gmc-uk.org- General Medical Council (GMC)
6. www.bundesaerztekammer.de– German Medical Association
7. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical class №7

Topic "Differential diagnosis of diseases with diarrhea syndrome (escherichiosis, campylobacteriosis, cholera, yersiniosis, viral diarrhea, parasitic invasions of the intestines)" – 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of infections with diarrhea syndrome (escherichiosis, campylobacteriosis, cholera, yersiniosis, viral diarrhea, parasitic invasions of the intestines); formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts:

Diarrhea, diarrheal syndrome - classification, etiological and pathogenetic factors of occurrence. Differential diagnosis of diseases with diarrheal syndrome: typhoid, paratyphoid A and B, salmonellosis, shigellosis, food toxic infections, botulism, escherichia, campylobacteriosis, cholera, yersiniosis, viral diseases.

Equipment: educational content (methodical materials for applicants of higher education, computer presentations, case histories, a collection of MSQ, situational tasks), a journal of attendance at classes (paper and electronic version), electronic information resources, tasks and cases for the current and final controls, tables, textbooks, atlases.

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education should know the answers to the questions to control the reference level of knowledge:
 - features of diarrhea of various genesis, their classification and clinical features.
 - degrees of dehydration, criteria of severity of diseases with diarrhea syndrome.
 - differential diagnosis of acute infectious diseases with diarrhea syndrome: salmonellosis, shigella, food poisoning, cholera, etc.
 - principles of providing emergency aid in case of dehydration shock.
 - confirmation of the preliminary and final diagnosis, prescribing treatment taking into account the form, severity of the course and period of the disease.
 - drawing up a plan of anti-epidemic measures in the focus of infection;
 - patient's examination plan and methods of specific and non-specific diagnosis of diarrheal syndrome, diagnosis of carriers of intestinal infections.
 - etiotropic therapy for intestinal infections: drugs, doses, route of administration, duration of appointment.
 - pathogenetic and symptomatic therapy in patients with intestinal infections.
 - rules for discharge from the hospital of patients with intestinal infections with diarrheal syndrome.
3. There is formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education should be able to:

- make an examination of a patient with diarrheal syndrome.
- evaluate the type of diarrhea according to the pathogenetic mechanism of development.
- compile an algorithm for the examination of a patient with acute diarrheal syndrome.
- assess the degree of dehydration in acute diarrhea based on clinical and laboratory characteristics.

- make a clinical and laboratory examination of a patient with diarrhea syndrome (escherichiosis, campylobacteriosis, cholera, yersiniosis, viral diarrhea, parasitic invasions of the intestines).
- conduct differential diagnosis of diarrhea syndrome in patients with infectious and non-infectious pathology.
- follow the algorithm for providing emergency care in case of dehydration, hypovolemic and infectious-toxic shock.
- Know the rules for prescribing specific therapy for diseases accompanied by diarrheal syndrome: salmonellosis, shigellosis, food-borne infections, botulism.

Materials for the final stage of the practical class

Situational tasks 1

A patient of 55 years old has manifestations of dehydration which developed after plentiful watery stool without admixtures up to 10 times and repeated vomiting. On admission his temperature was 36°C, dry mucous membranes, hoarse voice, blood pressure 90/50 mm Hg were marked. The patient drank crude milk, bought in the market together with his wife the day before the disease.

4. What is the most probable diagnosis?
5. What are the methods of diagnostics?
6. What etiologic and pathogenetic therapy should be administered?

Situational tasks 2

A student of 22 years old, returned after holidays in Ethiopia. Indulgent stools, sharp abdominal pains, some loss of the weight, slight enlargement of the liver developed. Stool became plentiful, 10 times a day. Stool is getting a kind of "raspberry jelly", followed by spastic abdominal pains. The pains are intensified during act of defecation.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

Situational tasks 3

A patient has a general weakness, pains in the low part of the stomach and around umbilicus, stools up to 4-5 times a day. Stool is scanty, with mucus of rose-color ("raspberry jelly"). He has been sick for more than a month. The patient came back from Middle Asia 3 months ago. On objective examination: pale skin, loss of weight, tenderness on palpation especially in the right part of the stomach and in the right hypogastrium. The liver is enlarged a little.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубовської. К.: ВСВ «Медицина», 2018. – 664 p.
2. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary W Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

1. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et al]. – New York. - 2017. – 1307 p.
2. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.

3. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

1. www.who.int- World Health Organization
2. www.ama-assn.org–American Medical Association /American Medical Association
3. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
4. <http://bma.org.uk>– British Medical Association
5. www.gmc-uk.org- General Medical Council (GMC)
6. www.bundesaerztekammer.de– German Medical Association
7. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical class №8

Topic "Differential diagnosis of diseases with diarrhea syndrome (salmonellosis, shigellosis, food-borne infections, botulism)" – 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of infections with diarrhea syndrome (salmonellosis, shigellosis, food-borne infections, botulism); formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts:

Diarrhea, diarrheal syndrome - classification, etiological and pathogenetic factors of occurrence. Differential diagnosis of diseases with diarrheal syndrome: typhoid, paratyphoid A and B, salmonellosis, shigellosis, food toxic infections, botulism, escherichia, campylobacteriosis, cholera, yersiniosis, viral diseases.

Equipment: educational content (methodical materials for applicants of higher education, computer presentations, case histories, a collection of MSQ, situational tasks), a journal of attendance at classes (paper and electronic version), electronic information resources, tasks and cases for the current and final controls, tables, textbooks, atlases.

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education should know the answers to the questions to control the reference level of knowledge:
 - features of diarrhea of various genesis, their classification and clinical features.
 - degrees of dehydration, criteria of severity of diseases with diarrhea syndrome.
 - differential diagnosis of acute infectious diseases with diarrhea syndrome: salmonellosis, shigella, food poisoning, cholera, etc.
 - principles of providing emergency aid in case of dehydration shock.
 - confirmation of the preliminary and final diagnosis, prescribing treatment taking into account the form, severity of the course and period of the disease.
 - drawing up a plan of anti-epidemic measures in the focus of infection;
 - patient's examination plan and methods of specific and non-specific diagnosis of diarrheal syndrome, diagnosis of carriers of intestinal infections.
 - etiotropic therapy for intestinal infections: drugs, doses, route of administration, duration of appointment.
 - pathogenetic and symptomatic therapy in patients with intestinal infections.
 - rules for discharge from the hospital of patients with intestinal infections with diarrheal syndrome.
3. There is formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education should be able to:

- make an examination of a patient with diarrheal syndrome.
- evaluate the type of diarrhea according to the pathogenetic mechanism of development.
- compile an algorithm for the examination of a patient with acute diarrheal syndrome.
- assess the degree of dehydration in acute diarrhea based on clinical and laboratory characteristics.

- make a clinical and laboratory examination of a patient with diarrhea syndrome (salmonellosis, shigellosis, food-borne infections, botulism).
- conduct differential diagnosis of diarrhea syndrome in patients with infectious and non-infectious pathology.
- follow the algorithm for providing emergency care in case of dehydration, hypovolemic and infectious-toxic shock.
- Know the rules for prescribing specific therapy for diseases accompanied by diarrheal syndrome: salmonellosis, shigellosis, food-borne infections, botulism.

Materials for the final stage of the practical class

Situational tasks 1

A 22-year-old patient became acutely ill 12 hours ago, when the temperature rose up to 38°C, accompanied with chills, general weakness, spasm-like pain appeared in the lower abdomen, and after 5 hours frequent scanty stools appeared with an admixture of mucus and blood. It was established that the day before the illness, the patient drank unboiled milk bought on the market. On rectoscopy: the mucous membrane of the distal part of the large intestine is swollen, hyperemic, there are punctate hemorrhages.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

Situational tasks 2

The patient is 20 years old, admitted for 1 day of illness. The vomiting suddenly appeared (4-5 times), liquid, profuse stools up to 10 times, chills, spasm-like pain in the epigastrium. On examination: T-39°C, severe condition, sharp facial features, pale skin, cyanosis of the nasolabial triangle, fingers and toes, calf muscle spasms. Heart tones are dull, P-120, rhythmic, weak filling. AT-80/40. The abdomen is bloated, painful in the epigastrium. The liver and spleen are unchanged. The day before, she ate meat jelly.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

Situational tasks 3

A 20-year-old patient has constant vomiting, diarrhea in the form of "rice water". The day before, he used unknown alcoholic beverages and mushrooms with food. 3 days ago he was in the area where there was an outbreak of an intestinal infection. On examination: the temperature is 35.6°C, blood pressure is not detected. The skin is dry, pale, the pulse is thready, the heart sounds muffled.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

3. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОЗ і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубовської. К.: ВСВ «Медицина», 2018. – 664 p.

4. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary W Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

4. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et al]. – New York. - 2017. – 1307 p.

5. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.
6. Recognition and diagnosis of infectious diseases / Посібник для англомовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

8. www.who.int- World Health Organization
9. www.ama-assn.org–American Medical Association /American Medical Association
10. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
11. <http://bma.org.uk>– British Medical Association
12. www.gmc-uk.org- General Medical Council (GMC)
13. www.bundesaerztekammer.de– German Medical Association
14. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical class №9

Topic " Differential diagnosis of diseases with syndrome of jaundice.

Clinical and pathophysiological characteristics of jaundice: hemolytic, hepatic, mechanical. Clinical and laboratory syndromes: cytolysis, cholestasis, mesenchymal-inflammatory." – 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of infections with syndrome of jaundice; formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts:

Syndrome of jaundice, hemolytic jaundice, hepatic jaundice, mechanical jaundice.

Equipment: educational content (methodical materials for applicants of higher education, computer presentations, case histories, a collection of MSQ, situational tasks), a journal of attendance at classes (paper and electronic version), electronic information resources, tasks and cases for the current and final controls, tables, textbooks, atlases.

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education should know the answers to the questions to control the reference level of knowledge:
 - modern definition of jaundice;
 - classification of jaundice;
 - the main clinical manifestations of diseases with jaundice syndrome;
 - stages of bilirubin metabolism;
 - markers of viral hepatitis - interpretation of indicators.
 - the main groups of drugs used in the treatment of patients with viral hepatitis;
 - the main indicators of specific and non-specific laboratory research methods for jaundice syndrome;
 - make differential diagnosis of diseases with jaundice syndrome in infectious and somatic pathology;
 - signs of the development of liver failure.
3. There is formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education should be able to:

- make an examination of a patient with syndrome of jaundice.
- evaluate the type of diarrhea according to the pathogenetic mechanism of development;
- compile an algorithm for the examination of a patient with acute syndrome of jaundice;
- make a clinical and laboratory examination of a patient with syndrome of jaundice;
- conduct differential diagnosis of syndrome of jaundice in patients with infectious and non-infectious pathology;
- know the rules for prescribing specific therapy for diseases accompanied by syndrome of jaundice.

Materials for the final stage of the practical class *Situational tasks 1*

The patient of 42 years old complains of dull pain in the right hypochondrium, decreased appetite, skin itch, jaundice. The disease began one month ago with prolonged arthralgia, food intolerance, severe weakness. Jaundice developed 3 weeks ago. Now jaundice has increased considerably. The temperature is 36,0°C. There are scratches after itching. The pulse rate is 56 beats per minute. The tongue is coated. The stomach is soft, painful in the right hypochondrium. The liver is enlarged by 3 cm. The spleen is no enlarged. There are leukopenia, relative lymphomonocytosis, ESR- 3 mm / hours in blood count.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What serologic markers should be found?
4. What etiotropic and pathogenetic therapy should be administered?

Situational task 2

The patient has been in the infectious department for 6 days. The beginning of the disease was gradual: nausea, vomiting, feeling of heaviness in the right hypochondrium, dark urine, acholic stools, yellowness of the skin and scleras. The liver is protruded by 3 cm, of average density, sensitive on palpation. Jaundice was intensified on the 14th day of the disease. Exitement developed. The liver diminished in size. Tendor reflexes are increased. The temperature is subfebrile.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 3

The patient M. of 30 years old was admitted to the hospital with complaints of jaundice, weakness, fever, edema of the legs and pains in the joints. Objectively: the condition is grave, there are jaundice, enlarged abdomen due to ascites. The liver is enlarged by 4 cm, dense, with sharp edge. The spleen is not palpated. Urine is dark. At first HBsAg was found in the blood of the patient 5 years ago. The clinical manifestations of viral hepatitis B were absent. The following markers were discovered in the blood: HBsAg (+), aHBc (+), aHBcIgM (-), aHD (+), aHDIGM (+), HBeAg (-), aHBe (-). What is the most probable diagnosis ?

4. What is the most probable diagnosis?
5. What are the methods of diagnostics?
6. What etiotropic and pathogenetic therapy should be administered?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

5. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубовської. К.: ВСВ «Медицина», 2018. – 664 p.

6. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary W Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

7. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et all]. – New York. - 2017. – 1307 p.

8. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2rd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.

9. Recognition and diagnosis of infectious diseases / Посібник для англомовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

1. www.who.int- World Health Organization

2. www.ama-assn.org–American Medical Association /American Medical Association
3. <http://bma.org.uk>– British Medical Association
4. www.gmc-uk.org- General Medical Council (GMC)
5. www.bundesaerztekammer.de– German Medical Association

Practical class №10

Topic " Differential diagnosis of diseases with syndrome of jaundice.

Laboratory diagnosis of jaundice. Methods of express diagnostics. Biochemical investigations. Markers of viral hepatitis. Indications for sending the patient to the hospital. Primary anti-epidemic measures. Acute hepatic encephalopathy. Causes, clinic, diagnosis, emergency care." – 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of infections with syndrome of jaundice; formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts:

Syndrome of jaundice, hemolytic jaundice, hepatic jaundice, mechanical jaundice.

Equipment: educational content (methodical materials for applicants of higher education, computer presentations, case histories, a collection of MSQ, situational tasks), a journal of attendance at classes (paper and electronic version), electronic information resources, tasks and cases for the current and final controls, tables, textbooks, atlases.

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
1. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education should know the answers to the questions to control the reference level of knowledge:
 - modern definition of jaundice;
 - classification of jaundice;
 - the main clinical manifestations of diseases with jaundice syndrome;
 - stages of bilirubin metabolism;
 - markers of viral hepatitis - interpretation of indicators.
 - the main groups of drugs used in the treatment of patients with viral hepatitis;
 - the main indicators of specific and non-specific laboratory research methods for jaundice syndrome;
 - make differential diagnosis of diseases with jaundice syndrome in infectious and somatic pathology;
 - signs of the development of liver failure.
2. There is formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education should be able to:

- make an examination of a patient with syndrome of jaundice.
- evaluate the type of diarrhea according to the pathogenetic mechanism of development;
- compile an algorithm for the examination of a patient with acute syndrome of jaundice;
- make a clinical and laboratory examination of a patient with syndrome of jaundice;
- conduct differential diagnosis of syndrome of jaundice in patients with infectious and non-infectious pathology;
- know the rules for prescribing specific therapy for diseases accompanied by syndrome of jaundice.

Materials for the final stage of the practical class

Situational tasks 1

The patient of 30 years old is a tutor in the kindergarden. She complains of general weakness, decreased appetite, nausea, discomfort in the epigastrium, dark urine, acholic feces. She fell ill 7 days ago. She had contact with children who were sick with hepatitis. The skin and mucous membranes are icteric. There is hepatomegaly. What is a diagnosis?

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What serologic markers should be found?
4. What etiologic and pathogenetic therapy should be administered?

Situational task 2

The patient was admitted to the infectious hospital on the 7th day of the disease with complaints of high temperature, headache, pain in the muscles, especially in calf muscles. The dermal integuments and scleras are icteric. There is hemorrhagic rash on the skin. Urine is bloody.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

Situational task 3

The nurse fell ill on September 16. the general weakness, nausea, vomiting, pain in the joints developed. On September 21 urine became dark, the skin became icteric. She was hospitalized on September 21. Objectively: the condition is of moderate severity. The temperature is 38,2°C. The jaundice of the skin and mucous membranes is expressed. The edge of the liver comes out by 3 cm lower the rib arch. Hematomas at the sites of injections, single petechias, hepatic smell from the mouth, edema of the feet and loin area developed on September 27. The liver is not palpated.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiologic and pathogenetic therapy should be administered?

3. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

4. List of recommended literature (main, additional, electronic information resources):

Main:

7. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубовської. К.: ВСВ «Медицина», 2018. – 664 p.

8. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary W Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

10. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et al]. – New York. - 2017. – 1307 p.

11. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.

12. Recognition and diagnosis of infectious diseases / Посібник для англомовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

6. www.who.int- World Health Organization

7. www.ama-assn.org–American Medical Association /American Medical Association

8. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine

9. <http://bma.org.uk>– British Medical Association

10. www.gmc-uk.org- General Medical Council (GMC)

11. www.bundesaerztekammer.de– German Medical Association
12. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical class 11

Topic: "Differential diagnosis of infectious diseases with respiratory syndrome" - 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of infections with respiratory syndrome; formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts: characteristics and classification of the causative agents of acute respiratory infections: causes, clinical signs. Acute respiratory failure, clinic and emergency care.

Equipment: educational content (methodical materials for applicants of higher education, computer presentations, case histories, a collection of MSQ, situational tasks), a journal of attendance at classes (paper and electronic version), electronic information resources, tasks and cases for the current and final controls, tables, textbooks, atlases.

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education should know the answers to the questions to control the reference level of knowledge:
 - clinical manifestations of respiratory syndrome depending on the localization of the pathological process.
 - epidemiological, pathogenetic, clinical and laboratory features of infectious diseases that can be accompanied by respiratory syndrome, their specific diagnosis, doctor's tactics when they are detected or suspected, their complications, principles of treatment and prevention.
 - procedure for hospitalization, examination and discharge of the patients.
 - differential diagnostic differences of respiratory syndrome in patients with influenza, parainfluenza, respiratory syncytial, adenovirus infection and bacterial lesions.
 - differential diagnostic features of respiratory syndrome in infectious and non-infectious pathology.
 - differential diagnosis of typical and atypical pneumonias (ornithosis, mycoplasmosis, legionellosis, SARS, MERS, COVID-19).
 - definition of the concept, classification, pathogenesis, clinical and laboratory diagnosis of acute respiratory failure, principles of treatment, emergency care at the pre-hospital stage, in the clinic of infectious diseases.
 - definition of the concept, classification, pathogenesis, clinical and laboratory diagnosis of respiratory distress syndrome in adults, principles of treatment, emergency care at the pre-hospital stage, in the clinic of infectious diseases.
 - the main orders of the Ministry of Health of Ukraine regarding diseases that occur with respiratory syndrome.
3. There is formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, prescribing laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education should be able to:

- make the algorithm of clinical-diagnostic examination of a patient with a respiratory-catarrhal syndrome: influenza, parainfluenza, other SARS: adenovirus, rhinosentical, rhinovirus infection.
- make the algorithm for providing etiotropic, pathogenetic and symptomatic therapy to a patient with a respiratory-catarrhal syndrome: influenza, parainfluenza, other SARS: adenovirus, rhinosentical, rhinovirus infection.

- know the rules for carrying out specific and non-specific prophylaxis to prevent the spread of respiratory-catarhal syndrome: influenza, parainfluenza, other SARS: adenovirus, rhinosentical, rhinovirus infection.
- know the clinical characteristics of different degrees of acute respiratory failure.
- provide of emergency care in case of acute respiratory failure.

Materials for the final stage of the practical class

Situational task 1

A 16-year-old patient, hospitalized on the 5th day of illness with complaints of moderate headache, nasal congestion, sore throat when swallowing, temperature rise to 38-38.5°C. The condition during hospitalization is satisfactory. Nasal breathing is difficult, abundant mucous secretions from the nose, hyperemia of the mucous membrane of the oropharynx, enlarged cervical and submandibular lymph nodes.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 2

The disease began acutely, the temperature rose to 38.5°C, with chills, a severe headache, pain in the muscles appeared. At the same time, there were: difficulty breathing through the nose, sore throat, dry exhausting cough, pain in the eyes, conjunctivitis. On the 3rd day after the temperature decreased, catarrhal symptoms increased, shortness of breath, cough with serous-bloody sputum, cyanosis of the lips, temperature rose to 39°C. Percussion sound over the lungs with a box-like tone, shortened on the right below, auscultatively - there are many dry and few wet rales.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 3

The patient fell a mild malaise, insignificant headache, and weakness the day before. Today the temperature increases to 38,5°C with chill, severe headache, mainly in the area of the forehead marked pain in the movements of eyeballs. The skin of his face and conjunctiva are bloodshot. The dry cough developed. His throat is bloodshot, granular enanthema and punctate hemorrhages are on the soft palate. Harsh breathing is heard above the lungs. The pulse rate is 90 beats per minute, rhythmical, of satisfactory properties.

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубоської. К.: ВСВ «Медицина», 2018. – 664 p.
2. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary W Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

1. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et all]. – New York. - 2017. – P. 1307 p.
2. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition.

Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.

3. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, О. Zubach, О. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

1. www.who.int- World Health Organization
2. www.ama-assn.org–American Medical Association /American Medical Association
3. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
4. <http://bma.org.uk>– British Medical Association
5. www.gmc-uk.org- General Medical Council (GMC)
6. www.bundesaerztekammer.de– German Medical Association
7. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical class 12

Topic: "Differential diagnosis of angina" - 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of infections with syndrome of angina; formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts: characteristics and classification of the causative agents of angina: causes, clinical signs. Bacterial tonsillitis. Diphtheria. Infectious mononucleosis.

Equipment: educational content (methodical materials for applicants of higher education, computer presentations, case histories, a collection of MSQ, situational tasks), a journal of attendance at classes (paper and electronic version), electronic information resources, tasks and cases for the current and final controls, tables, textbooks, atlases.

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education should know the answers to the questions to control the reference level of knowledge:
 - What are the infectious diseases, the course of which is accompanied by angina?
 - What is the classification of angina?
 - What are the characteristics of angina?
 - What are the morphology, term of appearance, dynamics of appearance of angina?
 - What are the etiological and pathogenetic factors of the most common diseases accompanied by angina?
 - What are the various clinical variants of diseases accompanied by angina and their typical complications?
 - What are the principles of laboratory diagnosis of diseases accompanied by angina?
 - What are the plan and interpret the obtained results in infectious diseases accompanied by angina?
 - What are the tactics of managing patients with the most common infectious diseases accompanied by angina?
 - What are the differential diagnosis of the most common diseases accompanied by the appearance of angina; clinical symptoms of emergency conditions and emergency care in the clinic of infectious diseases?
 - What are the main principles of treatment of the most common diseases accompanied by angina?
3. There is formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, prescribing laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education may be able:

- to communicate with a patient with angina, collect complaints, life and disease history, epidemiological history, conduct a survey of organs and systems;
- to perform a physical examination of a patient with angina and determining the main symptoms of the disease;

- to analyze the results of laboratory, functional and instrumental studies of a patient with angina;
- to perform differential diagnosis and substantiate the clinical diagnosis of a patient with angina;
- to determine the nature and principles of treatment of a patient with angina on the basis of a previous clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- to determine of measures for primary and secondary prevention of angina;
- to keep medical records of a patient with angina;
- to make a report on the results of the examination of a patient for angina by a team of students in the study group, an analysis under the guidance of the teacher of the correctness of the diagnosis, differential diagnosis, scope of the prescribed examination, treatment tactics, assessment of the prognosis and work capacity.

Materials for the final stage of the practical class

Situational task 1

The patient of 18 years old was admitted to the hospital with the complaints of headache, general weakness, high temperature, pain in the throat. Objectively: enlargement of all groups of lymphatic nodules, 1-3 cm in diameter, dense, elastic, with little pain, non connected together was revealed. The liver is enlarged by 3 cm, spleen - by 1 cm. In the blood - leukocytosis, atypical lymphocytes - 15%.

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 2

The patient of 16 years old was admitted to the infectious hospital on 9th day of disease. The disease began acutely with increase of the temperature to 38,5°C, then pains in the throat, weakness, dry cough, headache developed. Objectively: temperature is 38,3°C. The condition is of moderate severity. Slight jaundice of the skin and sclera is marked. The tongue is coated with a little fur. Hyperemia of the pharynx and tonsils, white fur in lacunas are observed. The cervical, axillary and inguinal lymphatic nodules are enlarged. The pulse rate is 96 per minute. The cardiac sounds are clear. The respiration is vesicular. The liver and spleen are enlarged. Urine is darker than usual.

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 3

A patient K. of 30 years old was admitted with complaints of high temperature, weakness, headache, and pain in the throat. On examination: the patient is pale, the mucous membrane of the stomatopharynx is edematous, cyanotic. There is edema of the tonsils. The dense dirty-gray furs develops on the tonsils. The furs are spread to the soft palate, arch, uvula. The regional lymphatic nodules are enlarged, moderately painful.

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

3. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубоської. К.: ВСВ «Медицина», 2018. – 664 p.
4. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary W Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

4. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et all]. – New York. - 2017. – P. 1307 p.
5. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.
6. Recognition and diagnosis of infectious diseases / Посібник для англомовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

8. www.who.int- World Health Organization
9. www.ama-assn.org–American Medical Association /American Medical Association
10. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
11. <http://bma.org.uk>– British Medical Association
12. www.gmc-uk.org- General Medical Council (GMC)
13. www.bundesaerztekammer.de– German Medical Association
14. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical class 13

Topic:” Differential diagnosis of infectious diseases with meningeal syndrome. Meningeal syndrome in infectious (meningococcal meningitis, viral serous meningitis, etc.)” - 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of infections with meningeal syndrome; formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts: meningitis, meningoencephalitis.

Equipment: educational content (methodical materials for applicants of higher education, computer presentations, case histories, a collection of MSQ, situational tasks), a journal of attendance at classes (paper and electronic version), electronic information resources, tasks and cases for the current and final controls, tables, textbooks, atlases.

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education should know the answers to the questions to control the reference level of knowledge:
 - clinical manifestations of meningeal syndrome depending on the localization of the pathological process.
 - epidemiological, pathogenetic, clinical and laboratory features of infectious diseases that can be accompanied by meningeal syndrome, their specific diagnosis, doctor's tactics when they are detected or suspected, their complications, principles of treatment and prevention.
 - procedure for hospitalization, examination and discharge of the patients.
 - differential diagnostic differences of meningeal syndrome in patients with bacterial and viral meningitis;
 - differential diagnostic features of meningeal syndrome in infectious and non-infectious pathology.
 - the main orders of the Ministry of Health of Ukraine regarding diseases that occur with meningeal syndrome.
3. There is formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, prescribing laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education should be able to:

- make the algorithm of clinical-diagnostic examination of a patient with a meningeal syndrome;
- make the algorithm for providing etiotropic, pathogenetic and symptomatic therapy to a patient with a meningeal syndrome;
- know the rules for carrying out specific and non-specific prophylaxis to prevent the spread of meningeal syndrome;
- provide of emergency care in case of meningeal syndrome.

Materials for the final stage of the practical class *Situational task 1*

A boy of 10 years old fell ill acutely after staying on the beach. The severe headache, nausea, vomiting, high temperature developed in the evening. Meningeal signs are positive. On a lumbar puncture the transparent liquid was received under great pressure, cytosis - 350 cells per 1 mm³, polynuclears - 20 %, lymphocytes - 80 %, Saccharum - 2,21 mmol/l, Sodium chloridums - 129 mmol/l, protein - 0,66 ‰, reaction Pandy ++ is received.

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 2

In the patient of 21 years old the disease began with increase of temperature to 39,0°C, headache, chill, repeated vomiting. Objectively: the temperature is 39,3°C, the pulse rate - 76 beats per minute, intense. Rigidity of occipital muscles is determined. Tendor reflexes are increased. The analysis of liquor: cytosis - 1237 in 1ml, of them: 84 % of neutrophils, 16 % of lymphocytes, Pandy' reaction ++, protein - 0,66 g/l. the fluid is torbid, flows out under increased pressure. On bacterioscopy gramm-negative cocci, morphologically similar with meningococci, are found in liquor on bacterioscopic investigation.

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 3

The patient K. of 10 years old fell ill acutely in August after staying on a beach, where he had eaten tomatoes, grapes and bathed in the cool water. The patient developed acute headache, nausea, vomiting, high temperature in the evening. The transparent liquid was received in cerebrospinal puncture under the pressure. Cytosis is 540 cells in 1 mm³, polynuclears - 5 %, lymphocytes - 95 %, sugar - 2,80 mmol/l, Sodium chlorides - 126 mmol/l. The film was not formed.

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

5. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубовської. К.: ВСВ «Медицина», 2018. – 664 p.
6. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary W Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

7. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et all]. – New York. - 2017. – P. 1307 p.
8. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2rd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.
9. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

15. www.who.int- World Health Organization
16. www.ama-assn.org–American Medical Association /American Medical Association
17. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
18. <http://bma.org.uk>– British Medical Association

19. www.gmc-uk.org- General Medical Council (GMC)
20. www.bundesaerztekammer.de– German Medical Association
21. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical class 14

Topic: “Differential diagnosis of infectious diseases with meningeal syndrome. Primary and secondary meningitis. Serous and purulent meningitis” - 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of infections with meningeal syndrome; formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts: meningitis, meningoencephalitis.

Equipment: educational content (methodical materials for applicants of higher education, computer presentations, case histories, a collection of MSQ, situational tasks), a journal of attendance at classes (paper and electronic version), electronic information resources, tasks and cases for the current and final controls, tables, textbooks, atlases.

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education should know the answers to the questions to control the reference level of knowledge:
 - clinical manifestations of meningeal syndrome depending on the localization of the pathological process.
 - epidemiological, pathogenetic, clinical and laboratory features of infectious diseases that can be accompanied by meningeal syndrome, their specific diagnosis, doctor's tactics when they are detected or suspected, their complications, principles of treatment and prevention.
 - procedure for hospitalization, examination and discharge of the patients.
 - differential diagnostic differences of meningeal syndrome in patients with bacterial and viral meningitis;
 - differential diagnostic features of meningeal syndrome in infectious and non-infectious pathology;
 - emergency care in case of brain's edema;
 - the main orders of the Ministry of Health of Ukraine regarding diseases that occur with meningeal syndrome.
3. There is formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, prescribing laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education should be able to:

- make the algorithm of clinical-diagnostic examination of a patient with a meningeal syndrome;
- make the algorithm for providing etiotropic, pathogenetic and symptomatic therapy to a patient with a meningeal syndrome;
- know the rules for carrying out specific and non-specific prophylaxis to prevent the spread of meningeal syndrome;
- provide of emergency care in case of meningeal syndrome.

Materials for the final stage of the practical class *Situational task 1*

The patient of 34 years old was admitted in a grave condition. The flaccidity, periodical loss of consciousness, intermittent cramps are marked. The skin is pale with yellowish shade. Tachycardia, arterial hypotonia are determined. The liver and spleen are enlarged. The temperature is high, constant. He fell ill after return from Africa 5 days ago, when increase of the temperature, headache, pain in the joints developed. Meningeal sings are doubtful.

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 2

In the patient of 21 years old the disease began from increase of temperature up to 39,0°C, headache, chill, repeated vomiting. Objectively: the temperature is 39,3°C. The pulse is 76 beats per minute, intense. The rigidity of the occipital muscles is determined. Tendor reflexes are increased. In analysis of liquor: cytos 1237 cells in 1mcl, of them: 84 % of neutrophils, 16 % of lymphocytes, Pandy reaction ++, protein - 0,66 g/l, turbid liquor under increased pressure were marked. On bacterioscopy gram-negative diplococci were founded in liquor, which remind meningococci morphologically .

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 3

The patient of 35 years old complains of severe headache, pain in the calf muscles, loin and extremities, sleeplessness. He fell ill acutely 3 days ago. The temperature increased up to 40°C. The chill, pains in the muscles, hemorrhagic rash on the skin, nasal bleeding, jaundice developed. The patient bathed in the river. There were lot of rodents in this place. There are hyperemia of the face, injection and jaundice of the sclerae, hemorrhagic rash on the skin, hepatosplenomegaly, he excreted 300 ml of the urine a day. Meningeal sings are positive.

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 4

A 24-year-old patient C. of 46 years old was admitted on the 2nd week of his disease with high temperature, headache, anxiety, moderately marked meningeal sings. On lumbar puncture the liquid flowed out under high pressure and was transparent. Cytosis is 350 cells in 1 mm³, polynuclears - 20 %, lymphocytes - 80 %, a , sugar - 1,21 mmol/l, sodium chlorides - 109 mmol/l, fiber - 0,66 %, fibrin film was formed, Pandy reaction + +. The microorganisms are not found out on bacterioscopy of the liquid.

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

7. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубоської. К.: ВСВ «Медицина», 2018. – 664 p.
8. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary

W.Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

10. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L. Kasper, Dan L. Longo [et al]. – New York. - 2017. – P. 1307 p.
11. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.
12. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, О. Zubach, О. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

22. www.who.int- World Health Organization
23. www.ama-assn.org–American Medical Association /American Medical Association
24. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
25. <http://bma.org.uk>– British Medical Association
26. www.gmc-uk.org- General Medical Council (GMC)
27. www.bundesaerztekammer.de– German Medical Association
28. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical lesson №15

Topic: «Differential diagnosis of exanthema» - 2 hours

The **aim** is improvement the knowledge of applicants of higher education regarding the main diseases of infectious and non-infectious pathology that can occur with exanthems; development of professional skills in taking an anamnesis, interviewing and examining a patient with the preparation of an examination plan and perform differential diagnosis of diseases, making a plan of treatment.

Basic concepts:

exanthema, enanthema - classification, etiological and pathogenetic factors of emergence, morphology, time of manifestation, phasing and metamorphism of rashes. Differential diagnosis of diseases with the manifestation of exanthema.

Equipment: educational content (methodical materials for applicants of higher education, computer presentations, case histories, a collection of MSQ, situational tasks), a journal of attendance at classes (paper and electronic version), electronic information resources, tasks and cases for the current and final controls, tables, textbooks, atlases.

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).

2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education may know the answers to the questions to control the reference level of knowledge:

- What are the infectious diseases, the course of which is accompanied by exanthemas?
- What is the classification of exanthema?
- What are the peculiarities of the course of "children's" droplet infections in adults?
- What is the characteristics of exanthema?
- What are the the morphology, term of appearance, dynamics of appearance of exanthema?
- What are the etiological and pathogenetic factors of the most common diseases accompanied by exanthems?
- What are the various clinical variants of diseases accompanied by exanthems and their typical complications?
- What are the principles of laboratory diagnosis of diseases accompanied by exanthems?
- What are the plan and interpret the obtained results in infectious diseases accompanied by exanthema?
- What is the tactics of managing patients with the most common infectious diseases accompanied by exanthema?
- What are the differential diagnosis of the most common diseases accompanied by the appearance of exanthema; clinical symptoms of emergency conditions and emergency care in the clinic of infectious diseases?
- What are the features of the clinical course of different clinical forms of diseases accompanied by exanthema?
- What are the main principles of treatment of the most common diseases accompanied by exanthems?

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

Recommendations (instructions) for performing the tasks

An applicant of higher education may be able to:

- to describe the current epidemic situation regarding the incidence of measles and rubella;
- to describe the concept of "children's droplet infections";
- to describe the epidemiology of measles and rubella;
- to name the features of the course of measles and rubella in adults;
- to describe the complications of measles and rubella;
- to describe pathognomonic symptoms for measles and rubella;
- to name the main methods of laboratory diagnosis of measles and rubella;
- to describe methods of treatment of measles and rubella are used;
- to describe the existing methods of preventing measles and rubella;
- to describe the vaccine preparations used for prevention measles and rubella;
- to describe the vaccination strategy against measles and rubella;
- to decide the tactics of monitoring a pregnant woman in case of infection with measles and rubella or in contact with sick people;
- to define epidemic parotitis and chicken pox;
- to characterize the epidemiological regularities of epidemic parotitis and chicken pox at the current stage;
- to name the main links of pathogenesis and pathomorphological changes in epidemic parotitis and chicken pox;
- to describe the features of the clinical picture of epidemic parotitis and chicken pox in adults;
- to describe the complications occur in patients with epidemic parotitis and chicken pox;
- to name the methods of diagnosing epidemic parotitis;
- to describe the treatment of the uncomplicated course of epidemic parotitis and chicken pox;
- to describe the treatment of complications of epidemic parotitis and chicken pox.

Materials for the final stage of the practical class

Situational task 1

An 8-year-old child has a temperature rise to 39 °C, a runny nose with significant purulent discharge, wet cough, conjunctivitis with purulent discharge, photophobia. On the mucous membrane of the cheek are bilious areas of bran-like exfoliating epithelium.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 2

The child's illness started with an increase in temperature to 38 °C and the appearance of a rash. At first, the rash looked like spots, then blisters appeared. When examining the skin of the face, trunk, limbs and scalp, a profuse rash is observed: papules, vesicles, crusts.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 3

The patient, 11 years old, had a sharp rise in body temperature to 40 °C. Chills, one-time vomiting, sore throat, headache, weakness appeared. On the second day, a macular rash appeared on the hyperemic background of the skin in the groin, upper chest, face and neck. The nasolabial triangle is pale.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

3. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубоської. К.: ВСВ «Медицина», 2018. –с. 339-358

4. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary W Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

4. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et al]. – New York. - 2017. – P. 876-898.

5. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.

6. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

8. www.who.int- World Health Organization

9. www.ama-assn.org–American Medical Association /American Medical Association

10. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine

11. <http://bma.org.uk>– British Medical Association

12. www.gmc-uk.org- General Medical Council (GMC)

13. www.bundesärztekammer.de– German Medical Association

14. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical lesson №16.

Topic: "Lyme disease. Erysipelas." - 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of Lyme disease (erysipelas); formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts: Lyme disease, erysipelas.

Equipment: illustrative material, tables, thematic patients

Plan:

6. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).

7. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education may know the answers to the questions to control the reference level of knowledge.

- What is the etiology of Lyme disease?
- What is the geographical distribution of Lyme disease?
- What are the main epidemiological patterns of this Lyme disease?
- What are the links of the pathogenesis of Lyme disease?
- What are the characteristic manifestations of a Lyme disease nthrax?
- What are the methods of diagnosing this Lyme disease?
- What are the principles of treatment of Lyme disease?
- What are the directions of non-specific and specific prevention of Lyme disease?
- What is the etiology of erysipelas?
- What are the main epidemiological patterns of erysipelas?
- What are the links of the pathogenesis of erysipelas?
- What are the characteristic manifestations of erysipelas?
- What methods of diagnosis are necessary in case of this disease?
- What are the principles of treatment of erysipelas?
- What are the directions of prevention of erysipelas?

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

Recommendations (instructions) for performing the tasks

An applicant of higher education may be able:

- to communicate with an anthrax patient, collect complaints, life and disease history, epidemiological history, conduct a survey of organs and systems;
- to perform a physical examination of an a Lyme disease (erysipelas) patient and determining the main symptoms of the disease;
- to analyze the results of laboratory, functional and instrumental studies of a patient with Lyme disease (erysipelas);
- to perform differential diagnosis and justify the clinical diagnosis of a patient with Lyme disease (erysipelas);

- to determine the nature and principles of treatment of a patient with Lyme disease (erysipelas) on the basis of a previous clinical diagnosis, observing relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- to determine of measures of primary and secondary prevention of Lyme disease (erysipelas);
- to keep medical documentation of a patient with Lyme disease (erysipelas);
- to make a report on the results of the examination of a patient with Lyme disease (erysipelas) by a team of students in the study group, an analysis under the guidance of the teacher of the correctness of the diagnosis, differential diagnosis, the scope of the prescribed examination, treatment tactics, assessment of prognosis and work capacity.

Materials for the final stage of the practical class

Situational task No. 1

The patient C. of 68 years old was admitted with complaints of high temperature, headache, and weakness, reddening and tenderness in the area of her right skin. The disease began acutely, with increase of the temperature to 39- 40°C, chill. On examination: edema of her right shin, the shin is painful, bloodshot. Hyperemia is with clear contours and inflammatory edges. There are vesicles with serous contents on the background of hyperemia.

1. What is the most probable diagnosis?
2. What are the methods of diagnostics?
3. What etiotropic and pathogenetic therapy should be administered?

Situational task #2

On June 14, patient L., 28 years old, 22 weeks gestation, consulted a dermatologist regarding the detection of redness of the skin of the abdomen on the left, not accompanied by itching of the skin. From the anamnesis: from May 18 to May 23 was in the forest, there were two tick bites. Objectively. On the skin of the abdomen on the left and in the lumbar region, rounded erythema, with diameters of 20 cm and 40 cm, respectively, of uniform color. In the central part of the erythema, traces of tick bites are noticeable. The inguinal lymph nodes on the left are enlarged. Body temperature - 37.0 ° C. BP 100/60. Ps - 78 per minute BR - 18 per minute. There is vesicular breathing in lungs. abdomen is enlarged due to the pregnant uterus, painless. The symptom of tapping in the lumbar region is negative. There are no meningeal signs. Physiological functions are not violated.

1. What is the preliminary diagnosis?
2. Which methods of specific diagnostics can use for confirmation of diagnosis?
3. Which drugs can use as an etiotropic therapy?

Situational task 3

Patient T., 37 years old, was admitted to the clinic on September 12 with complaints of intense headache, an increase in body temperature up to 38.8 ° C, vomiting, hypersensitivity to sound and light stimuli, pain when moving the eyeballs. From the anamnesis: in May-June he worked in the forest on the construction of an oil pipeline, there were tick bites. Ticks were not examined. He is vaccinated against tick-borne encephalitis. From July 14 to July 24, He went to Turkey, where there was a reddening of the abdominal skin around the place where the tick was attached, with a diameter of about 20 cm, there was no itching, and the body temperature did not rise. After a week, the redness disappeared. Upon admission to the clinic, the patient's condition is serious. Body temperature 38.5 ° C. The face is slightly hyperemic. There is vesicular breathing in the lungs. Heart sounds are rhythmic, muffled. Pulse 98 beats. per minute, BP-130/85 mm Hg. The abdomen is soft and painless. The liver protrudes at the edge of the costal arch. The spleen is not palpable. The symptom of tapping in the lumbar region is negative on both sides. Revealed moderate rigidity of the occipital muscles, a weakly positive Kernig symptom, a positive Danzig symptom. Excretes urine.

1. What is the preliminary diagnosis?
2. Which methods of specific diagnostics can use for confirmation of diagnosis?

3. Which drugs can use as an etiotropic therapy?

9. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

10. List of recommended literature (main, additional, electronic information resources):

Main:

3. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубовської. К.: ВСВ «Медицина», 2018. –с. 339-358

4. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary W Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

4. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et al]. – New York. - 2017. – P. 876-898.

5. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.

6. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

8. www.who.int- World Health Organization

9. www.ama-assn.org–American Medical Association /American Medical Association

10. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine

11. <http://bma.org.uk>– British Medical Association

12. www.gmc-uk.org- General Medical Council (GMC)

13. www.bundesaerztekammer.de– German Medical Association

14. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical lesson №17

Topic: «Differential diagnosis of lymphadenopathy» - 2 hours

The **aim** is improvement the knowledge of applicants of higher education regarding the main diseases of infectious and non-infectious pathology, which can occur with lymphadenopathy; development professional skills in taking an anamnesis, interviewing and examining a patient with the preparation of an examination plan and carrying out differential diagnosis of diseases, making a plan of treatment.

Basic concepts: lymphadenopathy - classification, etiological and pathogenetic factors of occurrence. Differential diagnosis of diseases with manifestation is lymphadenopathy.

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).

2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education may know the answers to the questions to control the reference level of knowledge:

- infectious diseases with syndrome of lymphadenopathy;
- noninfectious diseases with syndrome of lymphadenopathy;
- clinical manifestations of lymphadenopathy depending on the localization of the pathological process;
- epidemiological, pathogenetic, clinical and laboratory features of infectious diseases that can be accompanied by lymphadenopathy, their specific diagnosis, doctor's tactics when they are detected or suspected, their complications, principles of treatment and prevention;
- procedure for hospitalization, examination and discharge of the patients;
- differential diagnostic features of lymphadenopathy in infectious and non-infectious pathology;

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

Recommendations (instructions) for performing the tasks

An applicant of higher education may be able to:

- to perform characteristics of causative agent of infectious diseases with syndrome of lymphadenopathy;
- to perform differential diagnosis of lymphadenopathy accompanying infectious diseases (plague, tularemia, brucellosis, toxoplasmosis, etc.);
- to make the algorithm of clinical-diagnostic examination of a patient with lymphadenopathy;
- to make the algorithm for providing etiotropic, pathogenetic and symptomatic therapy to a patient with lymphadenopathy;

Materials for the final stage of the practical class

Situational task 1

A woman of 40 years old complains of moderate pain in the throat, increase of the temperature up to 38°C. She fell ill 2 days ago. Objectively: the patient is inert. She answers to questions hardly. The dermal integuments are pale. The rash is absent. The moderate hyperemia of the mucous membrane of the stomatopharynx with cyanotic tint is marked. The tonsils are edematous. There is a film coat on the left tonsil, it is taken out hardly. The lymphatic nodules are enlarged, moderately

dense and lightly painful. The pulse rate is 100 beats per minute, rhythmical. The arterial pressure is 120/60 mm Hg. Heart sounds are muffled. On percussion of the lungs a clear sound is determined. The respiration is vesicular. The liver and spleen are not palpated. Diuresis is preserved.

1. What is the preliminary diagnosis?
2. What methods of the laboratory diagnostics are necessary to perform for confirmation of diagnosis?
3. What is the main method of the treatment?

Situational task 2

The patient of 30 years old complains of increase of the temperature up to 39°C, pain in the left inguinal area. He fell ill 10 hours ago. The onset of the disease is acute. Objectively: the condition of the patient is severe. The dermal integuments are pale. The rash is absent. The stomatopharynx is clean. The tongue is coated by white fur. The painful lymphatic node is determined in the left inguinal area with periadenitis. The skin over lymphatic node is red and glistening. The pulse rate is 100 beats per minute, rhythmical. Heart sounds are dull. The lungs are without peculiarities. The abdomen is soft, painless on palpation. The liver and the spleen are not palpated. Stool is absent for 2 days. Diuresis is preserved.

1. What is the preliminary diagnosis and what is the form of the disease?
2. What are the methods of diagnostics?
3. What are more effective remedies of etiotropic therapy?

Situational task 3

The patient was admitted to the hospital with complaints of high temperature, sleeplessness, irritability, pain in the muscles, joints, loin, general weakness, marked sweating on the second month of the disease. The disease developed gradually. The general condition was slightly affected. The temperature has a wave-like character. It is known from epidemiological anamnesis that the patient works on the cattle-breeding farm. The animal abortions have been observed on this farm for several months. On examination: enlarged lymphatic nodules, hypotonia, small hepatomegaly, tenderness of the hands and legs in active and passive movements are revealed.

1. What is the preliminary diagnosis?
2. What is the principal method of examination?
3. What is the principal method of the treatment?

4. Summary:

There is evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

5. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОХ і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубовської. К.: ВСВ «Медицина», 2018. – с. 339-358
6. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary W Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

7. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et al]. – New York. - 2017. – P. 876-898.
8. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.
9. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, О. Zubach, О. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

15. www.who.int- World Health Organization
16. www.ama-assn.org–American Medical Association /American Medical Association
17. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
18. <http://bma.org.uk>– British Medical Association
19. www.gmc-uk.org- General Medical Council (GMC)
20. www.bundesaerztekammer.de– German Medical Association
21. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical lesson №18

Topic: "HIV infection \ AIDS " - 2 hours

The **aim** is improvement of students' knowledge about etiology, epidemiology, pathogenesis, clinical manifestations of HIV infection; formation of professional skills in making of the plan of examination (laboratory and instrumental), a complex plan of the treatment of the patient and the necessary preventive measures.

Basic concepts: HIV infection, opportunistic infections, opportunistic invasions, organization of assistance to patients with HIV infection.

Equipment: illustrative material, tables, thematic patients

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education applicant to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher may education know the answers to the questions to control the reference level of knowledge.
 - What is the etiology of HIV infection?
 - What is the epidemiology of HIV infection?
 - What is the pathogenesis of HIV infection?
 - What is the international classification of HIV infection?
 - What are the clinical manifestations of the main HIV-associated diseases (viral, bacterial, protozoal, fungal etiology)?
 - What are the methods of diagnosing HIV infection and HIV-associated diseases?
 - What are the main areas of treatment for HIV infection?
 - What are the criteria for the effectiveness of therapy based on polymerase chain reaction (PCR) data?
 - What are the directions of prevention of HIV infection?
3. There is formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education may be able:

- to communicate with a patient with HIV infection, collect complaints, life and disease history, epidemiological history, conduct a survey of organs and systems;
- to perform a physical examination of a patient with HIV infection and determining the main symptoms of the disease;
- to analyze the results of laboratory, functional and instrumental studies of a patient with HIV infection;

- to perform differential diagnosis and substantiate the clinical diagnosis of a patient with HIV infection;
- to determine the nature and principles of treatment of a patient with HIV infection on the basis of a previous clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- to determine of measures of primary and secondary prevention of HIV infection;
- to keep medical documentation of a patient with HIV infection;
- to make a report on the results of the examination of a patient with HIV infection by a team of students in the study group, an analysis under the guidance of the teacher of the correctness of the diagnosis, differential diagnosis, the scope of the prescribed examination, treatment tactics, assessment of prognosis and work capacity.

Recommendations (instructions) for performing the tasks

Situational task 1

The patient of 27 year old drug-addict complaints of rapid fatigue, decrease of the body mass, increase of the temperature up to 38.0°C for 1,5 months, diarrhea. He found enlarged axillary lymphatic nodules 3 weeks ago. Physical findings: the temperature is 37.4°C. The dermal integuments are pale. The rash is absent. The is covered by white fur. The enlarged axillary, cervical, inguinal lymphatic nodules are palpated. The pulse rate is 98 bpm, rhythmical. Heart sounds are muffled. On percussion of the lungs a clear sound is determined. The respiration is harsh. The abdomen is soft, painless on palpation. The liver is below rib arch by 3 cm, painless. In blood count thrombocytopenia, lymphopenia, eosinophilia are revealed.

- What is preliminary diagnosis?
- What are the methods of diagnostics?
- What are directions of therapy?

Situational task 2

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. Candidosis of oral cavity. What infectious disease would you suspect?

- What is preliminary diagnosis?
- What are the methods of diagnostics?
- What are directions of therapy?

Situational task 3

A 21-year-old woman is hospitalized for protracted pneumonia in the department of pulmonary diseases. It is known that she has had a large number of sexual partners. Over the past six months, pneumonia has been re-treated in a hospital twice. Physical findings: a temperature 38 ° C, a patient of low nutrition, the skin is pale, dry. Dispnea. Cervical, submandibular, axillary lymphnodes are enlarged, painless, up to 2 cm in size, not soldered together and with the surrounding tissue. The liver protrudes 2 cm below the costal arch.

- What is preliminary diagnosis?
- What are the methods of diagnostics?
- What are directions of therapy?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубоської. К.: ВСВ «Медицина», 2018. –с. 339-358
2. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary W Kozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

1. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et al]. – New York. - 2017. – P. 876-898.
2. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.
3. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

1. www.who.int- World Health Organization
2. www.ama-assn.org–American Medical Association /American Medical Association
3. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
4. <http://bma.org.uk>– British Medical Association
5. www.gmc-uk.org- General Medical Council (GMC)
6. www.bundesaerztekammer.de– German Medical Association
7. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical lesson №19

Topic: «Differential diagnosis of diseases with prolonged fever syndrome» - 2 hours

The **aim** is improvement the knowledge of applicants of higher education regarding the main diseases of infectious and non-infectious pathology, which can occur with syndrome of prolonged fever; development professional skills in taking an anamnesis, interviewing and examining a patient with the preparation of an examination plan and carrying out differential diagnosis of diseases, making a plan of treatment.

Basic concepts: prolonged fever syndrome - classification, etiological and pathogenetic factors of occurrence. Differential diagnosis of diseases with the manifestation of the syndrome of prolonged fever. Fever, hyperthermia - classification, etiological and pathogenetic factors of occurrence, complications, diagnostic procedures and treatment tactics.

Equipment: educational content (methodical materials for applicants of higher education, computer presentations, case histories, a collection of MSQ, situational tasks), a journal of attendance at classes (paper and electronic version), electronic information resources, tasks and cases for the current and final controls, tables, textbooks, atlases.

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education may know the answers to the questions to control the reference level of knowledge:
 - What is the etiology of infectious diseases that can cause prolonged fever?
 - What are the pathogenicity factors of pathogens?
 - What is the epidemiology of these diseases?
 - What are the links of pathogenesis of these disease?
 - What are the the main types of temperature curves?
 - What are the clinical classification and clinical manifestations of certain forms of diseases?
 - What are the pathogenesis and clinical manifestations of complications of these diseases?
 - What is the laboratory diagnostics of infectious and non-infectious diseases, an algorithm for examining a patient with a long-term fever of unknown origin?
 - What are the principles of treatment?
 - What is the differential diagnosis of diseases with prolonged fever?
 - What is the treatment of the patients with prolonged fever?
3. There is formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education may be able to:

- to describe characteristics of the sources of brucellosis;
- to name stages of brucellosis pathogenesis;
- to describe clinical characteristics of acute, chronic and residual brucellosis;
- to draw temperature curve in brucellosis;
- to make a plan of laboratory and instrumental investigations in brucellosis, their interpretation;
- to describe complete therapy of brucellosis;

- to perform specific and nonspecific methods of prevention of brucellosis;
- to name definition of the term "sepsis";
- to describe etiological structure of sepsis;
- to name ways of transmission and entrance gates in sepsis;
- to describe stages of pathogenesis of sepsis;
- to name clinical classification of sepsis;
- to describe clinical and laboratory signs which characterize the concept of "sepsis".
- to name complications that develop with sepsis;
- to make a plan of laboratory and instrumental investigations for a patient with sepsis;
- to make a plan of treatment for a patient with sepsis.

Materials for the final stage of the practical class

Situational task 1

The patient of 39 years old complains of chill who is changed by heat, increase of the temperature, then sweating in 6 hours. He fell ill acutely 6 days ago. The temperature increased up to 39°C, headache, pains in muscles and joints were marked. The increase of the temperature is marked every 48 hours. Epidemiological anamnesis: the patient was in Africa for 3 months. He came back 2 weeks ago. Objectively: there is reddening of the face, glistening of the eyes. The temperature is 40°C. The rash is absent. The tongue is moist, coated by white fur. Peripheral lymphatic nodules are no palpated. The pulse rate is 100 beats per minute, rhythmical. Heart sounds are muffled. The lungs are without peculiarities. The abdomen is soft, painless on palpation. The liver is below rib arch by 1.5 cm, painless. The spleen is below rib arch by 1 cm, painful. Stool is normal. Diuresis is preserved. Meningeal signs are not determined.

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics? What changes may present in results of these methods of diagnostics
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 2

The patient of 43 years old complains of headache, sweating, pains in muscles, joints, loin, dull pain in the scrotum. He has been sick for 5 weeks. The jaundice present. The patient is a worker of the sheepfarm. He drinks unboiled milk. There is hepatosplenomegaly. In a hemogram a relative lymphocytosis is marked.

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics? What changes may present in results of these methods of diagnostics
3. What etiotropic and pathogenetic therapy should be administered?

Situational task 3

The patient of 27 year old drug-addicts complains of rapid fatigue, decrease of the body mass, increase of the temperature up to 38.0°C for 1,5 months, diarrhea. He found enlarged axillary lymphatic nodules 3 weeks ago. Objectively: the temperature is 37,4°C. The dermal integuments are pale. The rash is absent. The mucous membrane of stomatopharynx is pure. The enlarged axillary, cervical, cubital, unguinal lymphatic nodules are palpated. The pulse rate is 98 beats per minute, rhythmical. Heart sounds are muffled. On percussion of the lungs a clear sound is determined. The respiration is harsh. The rales are absent. The abdomen is soft, painless on palpation. The liver is below rib arch by 3 cm, painless. The spleen is not palpated. In blood count thrombocytopenia, lymphopenia, eosinophilia are revealed.

1. What is the preliminary diagnosis?
2. What are the methods of diagnostics? What changes may present in results of these methods of diagnostics
3. What etiotropic and pathogenetic therapy should be administered?
4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубовської. К.: ВСВ «Медицина», 2018. –с. 339-358
2. CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary WKozarsky Phyllis. Oxford University Press, 2017. 704 pp.

Additional:

1. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et al]. – New York. - 2017. – P. 876-898.
2. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.
3. Recognition and diagnosis of infectious diseases / Посібник для англomовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

Electronic information resources:

1. www.who.int- World Health Organization
2. www.ama-assn.org–American Medical Association /American Medical Association
3. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
4. <http://bma.org.uk>– British Medical Association
5. www.gmc-uk.org- General Medical Council (GMC)
6. www.bundesaerztekammer.de– German Medical Association
7. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

Practical lesson №20

Topic: «Malaria» - 2 hours

The **aim** is improvement the knowledge of applicants of higher education regarding the etiology, epidemiology, pathogenesis and clinical manifestations of malaria; development professional skills in taking an anamnesis, interviewing and examining a patient with the preparation of an examination plan and perform differential diagnosis of diseases, making a plan of treatment.

Basic concepts: malaria - classification, etiological and pathogenetic factors of emergence, clinic, diagnosis and treatment. Preventive measures for the spread of malaria. Tactics of management of chemoresistant malaria.

Equipment: educational content (methodical materials for applicants of higher education, computer presentations, case histories, a collection of MSQ, situational tasks), a journal of attendance at classes (paper and electronic version), electronic information resources, tasks and cases for the current and final controls, tables, textbooks, atlases.

Plan:

1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of applicants of higher education to study the topic).
2. Control of the reference level of knowledge is carried out by the method of frontal survey. Applicant of higher education may know the answers to the questions to control the reference level of knowledge:
 - to describe cycle of parasites, features of schizogony of individual types of parasites;
 - to name features of the clinical course of different forms of malaria, pathogenesis of early and late relapses;
 - to describe complications of malaria;
 - to make a plan of laboratory and instrumental investigations;
 - to describe treatment and prevention of malaria;
 - to perform differential diagnosis of malaria.
3. There is formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

Recommendations (instructions) for performing the tasks

An applicant of higher education may be able:

- to communicate with a patient suffering from malaria, to collect complaints, life and disease history, epidemiological history, conducting a survey of organs and systems;
- to perform a physical examination of a patient malaria and determining the main symptoms of the disease;
- to analyze the results of laboratory, functional and instrumental studies of a patient malaria;
- to perform differential diagnosis and substantiate the clinical diagnosis of a patient with malaria;
- to determine the tactics and provide emergency medical care in emergency situations in patients with malaria;
- to determine principles of treatment of a patient with malaria on the basis of a previous clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- to determine measures of primary and secondary prevention of malaria;
- to keep medical documentation of a patient with malaria;

- to make a report on the results of the examination of a patient with malaria by a team of students in the study group, an analysis under the guidance of the teacher of the correctness of the diagnosis, differential diagnosis, the scope of the prescribed examination, treatment tactics, assessment of the prognosis and work capacity.

Materials for the final stage of the practical class

Situational task 1

The patient of 39 years old complains of chill who is changed by heat, increase of the temperature, then sweating in 6 hours. He fell ill acutely 6 days ago. The temperature increased up to 39°C, headache, pains in muscles and joints were marked. The increase of the temperature is marked every 48 hours. Epidemiological anamnesis: the patient was in Africa for 3 months. He came back 2 weeks ago. Objectively: there is reddening of the face, glistening of the eyes. The temperature is 40°C. The rash is absent. The tongue is moist, coated by white fur. Peripheral lymphatic nodules are no palpated. The pulse rate is 100 beats per minute, rhythmical. Heart sounds are muffled. The lungs are without peculiarities. The abdomen is soft, painless on palpation. The liver is below rib arch by 1.5 cm, painless. The spleen is below rib arch by 1 cm, painful. Stool is normal. Diuresis is preserved. Meningeal sings are no determined.

1. What is the preliminary diagnosis? (+type of Plasmodium)
2. What research is necessary to perform at first?
3. What therapy should be administered?

Situational task 2

The woman of 25 years old was admitted to the infectious hospital on the 6th day of the disease with complains of headache, chill, pains in the left hypogastrium. The onset of the disease is an acute. The chill developed. The temperature increased up to 39.9°C. The temperature decreased up to 37.2°C in 8 hours. At the next day the chill repeated the temperature arose again up to 40°C. Epidemiological anamnesis: the patient came back from Congo 11 days ago. Objectively: the dermal integuments are pale. The rash is absent. The stomatopharynx is clean. The tongue is moist, coated by white fur. The peripheral lymphatic nodules are no palpated. The pulse rate is 100 beats per minute, rhythmical. Heart sounds are muffled. The lungs are without peculiarities. The abdomen is soft, painful in the left hypogastrium on palpation. The liver is below rib arch by 2 cm, painful. The spleen is below rib arch by 1 cm. Meningeal sings are no determined.

1. What is the preliminary diagnosis? (+type of Plasmodium)
2. What research is necessary to perform at first?
3. What therapy should be administered?

Situational task 3

The patient of 30 years old was admitted to the infections hospital in severe conditions with assumed diagnosis typhus-paratyphoid disease. He fell ill acutely. Chill, the temperature 39.5°C, headache, pains in the muscles of the extremities developed. The temperature decreased suddenly. The decrease of the temperature was accompanied by sweating. The repeated increase of the temperature was marked in a day with chill. Epidemiological anamnesis: the patient works as mechanic of the ship. At the last time attended the row of the ports of Eastern Africa. Objectively: the patient is inert. The dermal integuments and mucous membranes are subicteric, dry. The peripheral lymphatic nodules are no palpated. The pulse rate is 84 beats per minute, rhythmical. Arterial pressure is 110/60. Heart sounds are muffled. On percussion of the lungs a clear sound is determined. The respiration is harsh. The rales are absent. The abdomen is soft, painless on palpation. The liver is below rib arch by 4 cm, painless. The spleen is below rib arch by 2 cm. Meningeal sings are no determined.

1. What is the preliminary diagnosis? (+type of Plasmodium)
2. What research is necessary to perform at first?
3. What therapy should be administered?

4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

Main:

1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубовської. К.: ВСВ «Медицина», 2018. –с. 339-358
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2. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.
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Electronic information resources:

1. www.who.int- World Health Organization
2. www.ama-assn.org–American Medical Association /American Medical Association
3. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
4. <http://bma.org.uk>– British Medical Association
5. www.gmc-uk.org- General Medical Council (GMC)
6. www.bundesärztekammer.de– German Medical Association
7. <https://library.odmu.edu.ua/catalog/>- Electronic catalog

The criteria of evaluation of the students on practical class

rating	criteria of evaluation
Excellent "5"	The student is fluent in the material, takes an active part in discussing and solving a situational clinical problem, confidently demonstrates practical skills during the examination of a patient and the interpretation of clinical, laboratory and instrumental research data, expresses his opinion on the topic of the class, demonstrates clinical thinking.
Good "4"	The applicant has a good command of the material, participates in the discussion and solution of a situational clinical problem, demonstrates practical skills during the examination of a patient and the interpretation of clinical, laboratory and instrumental research data with some errors, expresses his opinion on the topic of the class, demonstrates clinical thinking.
Satisfactory "3"	The acquirer does not have sufficient knowledge of the material, is unsure of participating in the discussion and solution of the situational clinical problem, demonstrates practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental research data with significant errors.
Unsatisfactory "2"	The acquirer does not possess the material, does not participate in the discussion and solution of the situational clinical problem, does not demonstrate practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental research data.

