


ОҢТҰСТІК ҚАЗАҚСТАН MEDISINA АКАДЕМИАСЫ «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
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METHODICAL RECOMMENDATIONS FOR THE PRACTICAL CLASSES

Name of discipline: «Hygiene and Epidemiology»

Code of discipline: GaE 3201


Name of EP: 6B10101 «General Medicine»

Amount of training hours /credits: 120h. (4 credits)

Course and semester of study: 3 course, V semester

Practical classes: 30 h.


Shymkent, 2023 year.

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Methodical instructions for practical classes are developed in accordance with the working program of the discipline (syllabus) «Hygiene and Epidemiology» and discussed at the meeting of the department.

Protocol № 10 from 23.05. 2023 year .

Head of the Department:  Utegov P.D.

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№1

1. Theme: Hygienic assessment of indoor microclimate. Assessment of heating

2. Purpose: to teach students to evaluate microclimatic conditions in residential and public buildings.

3. Learning objectives:

The student should know:

1. The concept of indoor microclimate;
2. Hygienic value of the air environment;
3. The method of measuring the temperature regime;
4. The method of measuring air humidity;
5. Comprehensive assessment of the influence of microclimatic factors on the human body.

The student should be able to:

1. Determine the physical parameters of indoor air;
2. Determine the temperature and humidity of the air in the room;
3. Recommend measures to optimize the microclimate;

4. Main questions of the topic:

1. The effect of microclimate on the human body.
2. Hygienic assessment of the microclimate. (atmospheric pressure, air humidity, air mobility, etc.).
3. The effect of high and low air temperatures on the body.
4. Heat and sunstroke.
5. Problems of acclimatization.
6. Degrees Celsius, Fahrenheit and Reaumur.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: work in small groups.

6. Types of control to assess the level of achievement of the final result of the discipline: oral interview, preparation of test tasks.

7. Literature:

Electronic resources:


1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортновский, Н. В. Карташева; пер. на англ. яз.
2. General Hygiene: Workbook for medical students / Aliona Tihon; "Nicolae Testemițanu" State Univ. of Medicine and Pharmacy, Gen. Hygiene Dep. – Chișinău: CEP Medicina, 2017. – 247p.

8. Control questions:


1. How does low and high air temperature affect the human body?
2. What is acclimatization?
3. What devices do you know for assessing the microclimate of premises?
4. With what device do we measure the air velocity in the premises?

Tests:

1. The parameters of the microclimate of the room are:
 - a) the speed of air movement

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- b) ultraviolet rays
 - c) solar radiation
 - d) atmospheric pressure
 - e) wind rose
2. During the cold season, the microclimate in the living room is:
- a) permissible relative humidity - 60%, air velocity -0.2 m/s, air temperature -200C
 - b) permissible relative humidity - 65%, air velocity 0.15 m/s, temperature -220
 - c) permissible relative humidity - 45%, air velocity 0.3 m/s, temperature -190 C
 - d) permissible relative humidity -30%, air velocity 0.5 m/s, temperature -180 C
 - e) permissible relative humidity -70%, air velocity 0.6 m/s, temperature -190 C
3. For hygienic assessment of room heating, it is necessary to carry out:
- a) thermometry
 - b) psychometry
 - c) anemometry
 - d) catathermometry
 - e) barometry
4. It is not recommended to arrange in residential buildings and children's institutions ... a type of heating.
- a) steam
 - b) stove
 - c) fireplace
 - d) water
 - e) radiant
5. Microclimate conditions in which the body is overcooled faster:
- a) high humidity and low temperature
 - b) low pressure and high temperature
 - c) high pressure and polluted air
 - d) heavy atmospheric ions
 - e) abiotic factors
6. The cooling capacity of the medium is determined by:
- a) catathermometry
 - b) anemometry
 - c) thermometry
 - d) barometry
 - e) psychometry
7. The microclimate according to the degree of its influence on the human thermal balance is divided into:
- a) permissible
 - b) neutral
 - c) cooling
 - d) heating
 - e) toxic
8. An indirect indicator of the sanitary condition of indoor air is:
- a) the concentration of carbon dioxide

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- b) oxygen concentration
 - c) ionic composition of air
 - d) bacterial air pollution
 - e) chemical composition of the air
9. Climatic features inherent in limited spaces are
- a) microclimate
 - b) macroclimate
 - c) ecosystem
 - d) weather
 - e) biosystem
10. During the sanitary and epidemiological examination of the microclimate of residential premises, the concentration of heavy aeroions prevails over light ions. The necessary hygienic measure in this case is:
- a) frequent ventilation and wet cleaning of premises
 - b) increase in the number of domestic plants
 - c) determination of maximum humidity
 - d) monitoring of indoor air quality
 - e) carrying out interior finishing works

№ 2

1. Theme: Hygienic assessment of the insolation regime, natural and artificial lighting in the premises.

2. Purpose: To familiarize the student with the hygienic requirements for the lighting of residential premises, premises for children and adolescents, medical facilities, with the indicators of illumination assessment and rationing, as well as with methods of measuring and evaluating the intensity of infrared radiation and UV radiation.

3. Learning objectives:

The student should know:


1. Composition of solar radiation;
2. Biological and hygienic significance of the rays of the solar spectrum;
3. The effect of solar radiation on the human body;
4. Types of insolation regime and their hygienic significance;
5. The main indicators of natural light;
6. Methods for determining indicators of natural light;
7. Hygienic requirements for natural lighting of premises.

The student should be able to:

1. Evaluate natural light;
2. Determine the indicators of the light coefficient, the coefficient of natural illumination, the angle of incidence of rays, the angle of the hole, the coefficient of deepening;
3. To assess the level of artificial lighting by calculation and with the help of devices and give recommendations for their correction;

4. Main questions of the topic:

1. The structure of the solar spectrum.
2. The biological role of individual UV radiation zones.

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3. Causes (natural and artificial) of UV insufficiency.
4. Changes in the body during light starvation.
5. Give a brief description of artificial sources of UV radiation.
6. Indications and contraindications to irradiation of people.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: work in small groups.

6. Types of control to assess the level of achievement of the final result of the discipline:
Checklist of the oral survey, preparation of test tasks


7. Literature:

Electronic resources:


1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортновский, Н. В. Карташева; пер. на англ. яз.
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8. Control tests:

1. The physical properties of air include:
 - a) air velocity
 - b) the content of microorganisms
 - c) the concentration of toxic gases
 - d) physical thermoregulation
 - e) chemical elements
2. Quartz lamps are used for:
 - a) the destruction of microorganisms in the air
 - b) decrease in air humidity
 - c) decrease in atmospheric pressure
 - d) increase in air temperature
 - e) decrease in air temperature
3. In order to study the effect of microclimate on the human body, medical university students need to organize systematic monitoring of the air temperature of the study room for 3 days. According to the observation results, the average daily temperature is 19 °C. Which of the following devices will allow you to most accurately register temperature fluctuations?
 - a) thermograph
 - b) hygrograph
 - c) anemometer
 - d) psychrometer
 - e) barograph
4. When determining the microclimate parameters of the office building, it was found that: air temperature 20 ° C, relative humidity 71%, air velocity 0.1 m / s, vertical air temperature drop 2.5 ° C, horizontal - 2 ° C. Which of the microclimate indicators does not meet hygienic standards?
 - a) relative humidity of the air
 - b) air velocity

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- c) air temperature
- d) vertical air temperature drop
- e) horizontal air temperature drop
- 5. Most sensitive to changes in microclimate parameters ...
 - a) forehead
 - b) shoulder
 - c) armpits
 - d) skin of the back
 - e) skin of the lower extremities
- 6. The duration of continuous insolation of premises and territories for the southern zone should be ... per day.
 - a) at least 2 hours
 - b) not more than 3 hours
 - c) not less than 5 hours
 - d) at least 7 hours
 - e) at least 1 hour
- 7. The duration of continuous insolation of premises and territories for the central zone should be ... per day.
 - a) at least 2.5 hours
 - b) not more than 3.5 hours
 - c) not less than 4.5 hours
 - d) not less than 5 hours
 - e) not more than 1.5 hours
- 8. “Natural light coefficient” is:
 - a) the ratio of horizontal illumination of the workplace to simultaneous horizontal illumination in the open air
 - b) the ratio of the area of the glazed surface of windows to the floor area
 - c) the degree of light retention by window panes
 - d) the ratio of light
 - e) the direction of the room to the cardinal directions
- 9. The most rational from a hygienic point of view is the ... lighting system.
 - a) combined
 - b) local
 - c) angular
 - d) general
 - e) combined
- 10. Specify the unit of illumination measurement:
 - a) lux
 - b) lumen
 - c) watt
 - d) kilowatt
 - e) percentage

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1. Theme: Hygienic assessment of the quality of drinking water and water supply sources. Methods for improving water quality.

2. Purpose: To acquaint students with diseases caused by water quality, and to teach them to give a hygienic conclusion about water quality based on the results of the analysis.

3. Learning objectives:

The student should know:


1. Physiological, hygienic and economic significance of water;
2. Norms of household and drinking water supply;
3. Infectious diseases associated with the water factor;
4. The main criteria for the quality of drinking water and the hygienic significance of microbiological, chemical, organoleptic and radiological indicators by which they are determined;
5. Hygienic requirements for water quality and selection of water sources for centralized water supply.
6. Sanitary and hygienic characteristics of underground and surface sources and water supply systems;
7. Principles of water quality improvement;
8. Methods of water purification;
9. Methods of water disinfection;
10. Special methods for improving water quality.

The student should be able to:

1. Recommend the choice of a water source or water supply based on the data of a sanitary and topographic survey of the water source and water quality indicators;
2. To assess the role of the water factor in the development of a particular disease.;
3. To recommend the choice of a water source for centralized water supply based on data from a sanitary and hygienic survey and water quality indicators;
4. Evaluate the quality of drinking water and give a conclusion about its suitability based on the results of the analysis;
5. To characterize the most effective methods of improving water quality, taking into account the epidemiological situation and the degree of contamination of the water source;
6. Identify chlorination methods in practice;
7. Determine the chlorine needs, chlorine absorbency and residual chlorine content in drinking water;
8. Evaluate the effectiveness of water disinfection.

4. Main questions of the topic:

1. Hygienic, physiological and economic importance of water.
2. Epidemiological significance of water.
3. Types of water sources and their sanitary and hygienic significance.
4. Hygienic requirements for the quality of drinking water.
5. Diseases caused by natural chemical composition and chemical contamination of water.
6. Principles of biogeochemical provinces and biogeochemical endemias.
7. Principles of water quality improvement.
8. Basic methods of improving water quality.
9. Coagulation, its hygienic significance. Doses of coagulant.
10. Upholding, its hygienic value.
11. Filtration, its hygienic value.
12. Special methods of water treatment (decontamination, degassing, de-ironing, fluoridation, de-fluoridation, etc.) and their hygienic significance.

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13. Methods of chlorination of water.

14. Methods for determining the chlorine demand of water, residual chlorine.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: work in small groups.

6. Types of control to assess the level of achievement of the final result of the discipline: Solving situational problems.

7. Literature:

Electronic resources:

1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортоновский, Н. В. Карташева; пер. на англ. яз.

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8. Control - situational tasks:

Task 1.

To organize the water supply of the settlement, it is proposed to use water from the river on the bank of which the settlement is located. Above the village at a distance of 5 km there is a large livestock complex. The water quality test showed:

Taste - 2 points

Color - 40 degrees.

Smell - 3 points

Transparency - 18 cm

Ammonia - 0.06 mg/l

Nitrites - 0.034 mg/l

Nitrates - 48 mg/l

Oxidizability - 5.2 mg/l

Hardness - 6 mg-eq/l

Chlorides - 186 mg/l

Sulfates - 318 mg/l

Fluorine - 0.5'mg/l

Microbial number - 1000

Koli-index – 280

Task 2.

A settlement is located on the bank of a mountain river, for the organization of its water supply, it is proposed to use the water of a river with a fast current, Water sampling above the location of the settlement along the river showed:


Smell - 2 points

Taste -2 points

Color - 28 degrees.

Transparency-13 cm

Ammonia - 0.02 mg/l

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Nitrites - 0.003 mg/l
 Oxidizability - 4.6 mg/l
 Chlorides - 106 mg/l
 Sulfates - 218 mg/l
 Fluorine - 0.32 mg/l
 Microbial number -1000
 Koli-index – 94

Task 3.

To supply water to the settlement, it was decided to drill an artesian well, the water quality of which is as follows:

Color - 18 degrees.
 Smell - 2 points
 Taste - 2 points
 Transparency - 35 cm
 Dry residue - 2000 mg/l
 Hardness - 18 mg/-eq/l
 Ammonia - no
 Nitrates - no
 Nitrites - 54 mg/l
 Oxidizability - 1.8 mg/l
 Chlorides - 420 mg/l
 Sulfates - 600 mg/l
 Fluorine - 5 mg/l
 Koli-index - 2
 Microbial number – 55


Task 4.

Give a conclusion about the quality of tap water:

taste, taste – 2
 points color - 25
 ° dry residue -800 mg/l
 chlorides -400 mg/l
 sulfates -180 mg/l
 iron – 0.5 mg/l
 total hardness – 7.1 m mol/l
 nitrates -10 mg/l
 fluorine -0.9 mg/l
 residual chlorine-0.7 mg/l
 microbial number – 30
 common and thermotolerant intestinal bacteria and coliphages - are absent in 100 ml of water

№ 4

1. Theme: Sanitary and hygienic assessment of the soil.

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2. Purpose: to give an idea of the sanitary-hygienic and epidemiological significance of the soil, to teach to assess the degree of soil contamination by indicators of sanitary condition.

3. Learning objectives:

The student should know:

1. Hygienic significance of soil composition and properties;
2. The role of soil in the development of infectious and non-communicable diseases among the population;
3. Indicators of the sanitary condition of the soil;
4. Hygienic requirements for cleaning populated areas.

The student should be able to:

1. To assess the sanitary and epidemiological safety of the soil;
2. To assess the suitability of the land plot for the placement of children's and medical institutions, based on the data of the mechanical composition and sanitary condition of the soil;
3. To assess the possibility of the development of geochemical endemias.

4. Main questions of the topic:

1. The hygienic value of the soil.
2. Mechanical composition and physical properties of the soil (air and water permeability, moisture capacity, capillarity, hygroscopicity) and their hygienic significance.
3. The natural chemical composition of the soil and its hygienic significance.
4. Natural biogeochemical provinces and endemias, their prevention.
5. Soil contamination by exogenous chemical compounds. Ways of their entry from the soil into the human body.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: Oral interview, discussion of the topic of the lesson.

6. Types of control to assess the level of achievement of the final result of the discipline: Preparation of test tasks, solving situational problems.


7. Literature:

Electronic resources:


1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортновский, Н. В. Карташева; пер. на англ. яз.
2. General Hygiene: Workbook for medical students / Aliona Tihon; "Nicolae Testemițanu" State Univ. of Medicine and Pharmacy, Gen. Hygiene Dep. – Chișinău: CEP Medicina, 2017. – 247p.

8. Control tests:

1. The main sanitary and hygienic value of the soil is that:
 - a) soil causes the occurrence of endemic and transmission of infectious diseases
 - b) the soil influences the microclimate
 - c) the soil determines the diversity of flora and fauna
 - d) the soil determines the terrain
 - e) the soil determines the quality of agricultural products
2. «Humus» is:
 - a) humus
 - b) animal and bird feces

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- c) residual amounts of mineral fertilizers in the soil
- d) residual amounts of pesticides in the soil
- e) type of vegetable crops grown on pure humus
- 3. The sanitary number is:
 - a) the ratio of nitrogen of the water extract to the total nitrogen of the soil
 - b) the ratio of inorganic nitrogen to organic
 - c) the ratio of the amount of organic nitrogen to soil protein nitrogen
 - d) the ratio of organic nitrogen to inorganic
 - e) the ratio of the amount of soil protein nitrogen to the amount of organic nitrogen “humus”
- 4. Soil aeration:
 - a) promotes the release of intermediate decomposition products of organic substances increases
 - b) reduces the biochemical activity of microorganisms
 - c) the biochemical activity of microorganisms
 - d) stimulates the growth of microorganisms with the release of foul-smelling substances
 - e) stimulates the reproduction of microorganisms and their contamination of the soil surface
- 5. During the bacteriological analysis of the soil, the following is determined:
 - a) sanitary number
 - b) aerobic titer
 - c) pollution triad
 - d) coli – titer
 - e) number of helminths
- 6. Increased coli-titer is an indicator of ... soil contamination.
 - a) chemical
 - b) fecal
 - c) helminthological
 - d) hydrogen sulfide
 - e) inorganic
- 7. The epidemiological significance of the soil is:
 - a) to create conditions for the vital activity of pathogenic microorganisms
 - b) in the ability to neutralize liquid and solid waste
 - c) in creating a nitrogen cycle in nature
 - d) in creating conditions for the vital activity of non-pathogenic microorganisms
 - e) plays a leading role in the occurrence of mass infectious diseases
- 8. The presence of humus in the soil indicates:
 - a) about the presence of pathogenic microflora in the soil
 - b) about the beginning of self-cleaning processes in the soil
 - c) about the presence of pesticides in the soil
 - d) about the completion of self-cleaning processes of the soil
 - e) on the presence of fresh organic soil contamination
- 9. Sanitary number of heavily polluted soil:
 - a) 0.85-0.98
 - b) 0.8-0.85
 - c) up to 0.7
 - d) 0.7-0.8

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e) 0.98- and above

10. Pathogenic microorganisms permanently inhabiting the soil include:

- a) *Vibrio cholerae*
- b) pathogens of typhoid and typhus
- c) pathogens of tularemia, tuberculosis
- d) causative agents of tetanus and gas gangrene
- e) hepatitis virus, influenza

11. In the soil, the following stages of development and maturation take place:

- a) bovine and pork tapeworm
- b) ascaris, pinworm, whipworm
- c) siberian fluke, cat fluke
- d) trichinella
- e) hookworm

12. Slightly polluted soil is characterized by ... helminth eggs per 1 kg of soil.

- a) up to 100
- b) up to 2
- c) up to 40
- d) more than 100
- e) up to 10

13. The presence of viable helminth eggs in the soil indicates:

- a) fresh fecal contamination
- b) on pollution by industrial wastewater
- c) on the presence of toxic substances in the soil
- d) on the beginning of self-purification processes of the soil
- e) on the absence of organic pollution

14. Soil property that must be taken into account when digging cellars:

- a) thermal conductivity
- b) filtration capacity
- c) structure
- d) water permeability
- e) humidity

15. Sources of soil contamination by microorganisms and helminths:


- a) domestic wastewater
- b) industrial wastewater
- c) wastewater from thermal and hydroelectric power plants
- d) atmospheric water

Situational tasks:

Task № 1

According to the results of laboratory studies, the soil of the hospital's land plot was assessed as contaminated.

What, in this case, was Khlebnikov's sanitary number?

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Task №2

During a laboratory study of the soil of the land plot allocated for the construction of the hospital, it was found: coli-titer – 1; titer of anaerobes — 0.1; sanitary number of Khlebnikov — 0.99; helminth eggs are not present in 1 kg of soil; larvae and pupae of flies are not present on an area of 0.25 m².

Assess the degree of epidemic safety of the soil.

Task №3

According to the laboratory control of the sanitary condition of the soil on the territory of the hospital, according to the indicators of the sanitary number, the soil is slightly polluted, according to the titer of E. coli — polluted, according to the titer of anaerobes (Cl. perfringens) — slightly polluted.

Give a hygienic assessment.

Task №4

The city with a population of 120 thousand people is located in the climatic subdistrict I B. Residential buildings are equipped with water supply, sewerage and local heating and the use of drilling angles as fuel.

Determine the total amount of solid waste to be exported.

№ 5

1. Theme: Food hygiene. Hygienic value of proteins, fats, carbohydrates, minerals and vitamins.

2. Purpose: Explain to students the nutritional value of proteins and fats, carbohydrates, minerals and vitamins.

3. Learning objectives:

The student should know:


1. The importance of proteins in the human body,
2. The role of animal and vegetable proteins; the composition of fats (lipids),
3. The importance of food in the body, the role of fatty acids;
4. The physiological significance of carbohydrates, vitamins and minerals.

The student should be able to:

1. Evaluate the protein value of food,
2. Evaluate the nutritional value of carbohydrates;
3. Evaluate the types, composition and properties of fats,
4. The need for vitamins and minerals of the human body.

4. Main questions of the topic:

1. Rational nutrition, its hygienic value.
2. Balanced nutrition, its hygienic value.
3. The main biological role of proteins.
4. The role of carbohydrates in the human body?
5. What role do fats play in the human body?
6. What determines the need for fat in the human body?
7. Name the main sources of dietary carbohydrates.
8. The main biological role of carbohydrates.

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9. Name water-soluble and fat-soluble vitamins.

10. What is the value of vitamins and minerals in the human body?

5. The main forms/methods/technologies of training to achieve the final result of the discipline: Oral interview.

6. Types of control to assess the level of achievement of the final result of the discipline: Preparation of test tasks.

7. Literature:

Electronic resources:

1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортоновский, Н. В. Карташева; пер. на англ. яз.

2. General Hygiene: Workbook for medical students / Aliona Tihon; "Nicolae Testemițanu" State Univ. of Medicine and Pharmacy, Gen. Hygiene Dep. – Chișinău: CEP Medicina, 2017. – 247p.

8. Control questions: :

1. What can you tell us about rational nutrition and its basic principles?

2. What is a balanced diet?

3. What diseases related to malnutrition do you know?

4. What diseases do you know associated with overeating?

5. What is the value of protein in the human body?

6. What diseases develop with insufficient protein nutrition?

7. What is the physiological significance of carbohydrates?

8. What causes excessive consumption of carbohydrates?

9. Which fatty acids belong to PUFA and what is their role in the human body?

10. What factors determine the biological value of fats?

11. What explains vitamin deficiency?

12. Name the reasons for the imbalance of minerals in the body.

Tests:

1. High-quality nutrition is:

a) the presence in food of all the nutrients necessary for the body

b) energy supply of the body's nutrition depending on gender and age

c) the necessary ratio of nutrients in the diet

d) nutrition of national characteristics of a person

e) the relationship of meals with biological rhythms

2. The quantitative usefulness and adequacy of nutrition reflects the definition:

a) food must satisfy the energy needs of the body, depending on age, gender and intensity of metabolic processes


b) the food must contain all the necessary nutrients

c) the food must be harmless


d) the food must provide a high level of absorption of nutrients through its culinary processing

e) the intake of nutrients must not only be sufficient in quantity, but also be in certain ratios that increase the digestibility of each other

3. The main biological role of proteins is:

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- a) is a plastic material for the body
 - b) participation in the synthesis of vitamin
 - c) participation in enzyme metabolism
 - d) is an activator of the growth of the body
 - e) participates in the resorption of polyunsaturated fatty acids
4. The nutritional value of fat is determined by:
- a) the content of polyunsaturated fatty acids
 - b) the content of saturated fatty acids
 - c) the content of phosphatides
 - d) the content of sterols
5. The daily component of human energy consumption:
- a) basic metabolism, various activities
 - b) mental and physical labor
 - c) sports, hardening
 - d) the work of the organs of internal secretion and basic exchange
 - e) physical labor
6. When splitting 1 gram of protein in the body is released... energy.
- a) 4.1 kcal
 - b) Class 2
 - c) 6 kcal
 - d) 9.3 kcal
 - e) 11 kcal
7. The human body's need for nutrients and energy depends on:
- a) on the severity of the work performed, age, gender and climatic conditions
 - b) on the taste and volume of food
 - c) on the level of digestive enzymes of food
 - d) on the content of vitamins in food
 - e) on the level of exposure to harmful production factors
8. Daily distribution of caloric content of food (in%) with 4 meals a day:
- a) breakfast 25%, lunch 35%, afternoon tea 15%, dinner 25%
 - b) breakfast 25%, lunch 50%, afternoon tea 10%, dinner 15%
 - c) breakfast 15%, lunch 40%, afternoon tea 10%, dinner 35%
 - d) breakfast 20%, lunch 30%, afternoon tea 20%, dinner 30%
 - e) breakfast 25%, lunch 55%, afternoon tea 10%, dinner 10%
9. Foods that contain a large amount of vitamin B1 (thiamine):
- a) brewer's yeast, black bread, carrots, apple
 - b) fish oil, butter, egg yolk
 - c) cabbage, carrots, potatoes, pork liver
 - d) potatoes, rice, barley
 - e) butter, milk, berry
10. Simple carbohydrates include
- a) glucose, fructose.
 - b) starch, fiber.
 - c) sucrose, maltose.

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- d) glycogen, pectin substances.
- e) lactose, galactose.
- 11. Complex carbohydrates include ...
 - a) starch, glycogen.
 - b) glucose, fructose.
 - c) maltose, galactose.
 - d) pectin substances.
 - e) glucose, fiber.
- 12. The biological role of polyunsaturated fatty acids:
 - a) contribute to the elimination of cholesterol from the body
 - b) participate in the synthesis of fat-soluble vitamins
 - c) increase the elasticity of the walls of blood vessels
 - d) reduce the permeability of the walls of blood vessels
 - e) reduce the fragility of capillaries
- 13. The main biological role of carbohydrates:
 - a) is the main source of energy
 - b) is the main structural element of the body
 - c) has a plastic function
 - d) is a source of vitamin metabolism
 - e) is the main regulator of the activity of the biliary system of the body
- 14. The main function of the body, which is provided by nutrition:
 - a) plastic and energy
 - b) synthesis of vitamins necessary for the vital activity of the body
 - c) providing the body with xenobiotics
 - d) prevention of diseases
 - e) ensuring the spiritual development of the body
- 15. Causes of nutritional deficiency of vitamins ...
 - a) anti-vitamin factors of food products.
 - b) anti-vitamin effect of drugs, xenobiotics.
 - c) irrational chemotherapy.
 - d) intense neuropsychic stress, stress.
 - e) the presence of indigestible forms of vitamins in food products.
- 16. The classification of vitamins is based on...
 - a) solubility in water and fat.
 - b) the degree of toxicity.
 - c) the degree of assimilation.
 - d) solubility in food.
 - e) the degree of stability.

№ 6

- 1. Theme:** The main patterns of growth and development of the child's body. Age periodization.
- 2. Purpose:** To familiarize students with the basic patterns of growth and development of the child's body and with age periodization.
- 3. Learning objectives:**

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The student should know:

1. Patterns of growth and development of the child's body;
2. Life cycle stages;
3. Non-simultaneous growth and development of individual organs and systems;
4. Classification of the periodization of individual development processes (age groups).

The student should be able to:

1. To characterize the patterns of growth and development of the child's body;
2. To assess the non-simultaneous growth and development of individual organs and systems;
3. To assess the conditionality of the growth and development of the organism by environmental factors;
4. To characterize the classification of the periodization of the processes of individual development.

4. Main questions of the topic:

1. The main patterns of growth and development of the child's body.
2. Uneven growth and development rate.
3. Conditioning of growth and development by sex (sexual dimorphism).
4. Acceleration and retardation of growth and development.
5. Age periodization.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: Work in small groups, familiarization with the anatomical and physiological characteristics of children and adolescents.

6. Types of control to assess the level of achievement of the final result of the discipline: The checklist of the oral survey, the preparation of test tasks.

7. Literature:

Electronic resources:

1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортоновский, Н. В. Карташева; пер. на англ. яз.
2. General Hygiene: Workbook for medical students / Aliona Tihon; "Nicolae Testemițanu" State Univ. of Medicine and Pharmacy, Gen. Hygiene Dep. – Chișinău: CEP Medicina, 2017. – 247p.


8. Control questions: :

1. What are the main patterns of growth and development of the child's body?
2. How does the uneven growth and development rate manifest itself?
3. What is heterochrony and sexual dimorphism?
4. What is acceleration and retardation?
5. How is age periodization characterized?

Working in small groups

Student groups are divided into small groups. For a certain time (at the discretion of the teacher), groups work according to the task given by the teacher. To do this, the teacher provides participants with question cards. After completing the task, each group answers the questions given by the teacher.

Tasks for groups

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1 group.

1. The main patterns of growth and development of the child's body.
2. Age periodization.

2-group.

1. Uneven growth and development rate.
1. The main indicators of physical development.

Group 3.

1. The conditionality of growth and development by gender.
2. Retardation of growth and development.

Tests:

1. Frequency of assessment of physical development of children 3-7 years:

- a) semi-annual
- b) monthly
- c) quarterly
- d) weekly
- e) annual

2. Frequency of assessment of physical development of children aged 7-17 years:

- a) annual
- b) monthly
- c) quarterly
- d) semi
- annual e) weekly

3. Acceleration is:

- a) objective regularity of children's growth and development
- b) indicator of biological development of the child
- c) somatometric sign of physical development
- d) indicator of solar radiation intensity
- e) indicator of harmony of physical development


4. Children belong to the youth age:

- a) 15-18 years old
- b) up to 3 years old
- c) 7-10 years old
- d) 11-14 years old
- e) 3-7 years old

5. Children belong to adolescence:

- a) 11-14 years old
- b) up to 3 years
- c) 7-10 years
- d) 15-18 years
- e) 3-7 years

6. At what age do children go to a teenage doctor?

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- a) 15 years
 - b) 13 years
 - c) 14 years
 - d) 16 years
 - e) 12 years
7. Biological age is characterized by indicators ...
- a) the number of permanent teeth
 - b) somatoscopic
 - c) body weight
 - d) stanovaya force
 - e) OGK
8. The main pattern of growth and development of children and adolescents ...
- a) uneven growth and development rates
 - b) functional imperfection
 - c) physical imperfection
 - d) correspondence of passport and biological age
 - (e) Biological maturity
9. What age is characterized by acceleration?
- a) the whole period of childhood
 - b) the whole period of life
 - c) preschool age
 - d) school age
 - e) preschool age

№ 7

1. Theme: Industrial microclimate and prevention of diseases caused by unfavorable microclimatic conditions.

2. Purpose: to give an idea of dust pathology and noise, to teach to assess their danger and harmfulness and to develop measures to prevent their adverse effects on the body of workers.


3. Learning objectives:

The student should know:

1. Classification of dust pathology;
2. The main sources of dust in production;
3. Measures to prevent the adverse effects of dust pathology;
4. Principles of dust pathology formation;
5. Noise classification;
6. The main sources of noise in production;
7. Measures to prevent the adverse effects of noise;
8. Principles of noise rationing.

The student should be able to:

1. To give a hygienic assessment of dust pathology;
2. To justify recreational activities in specific industries;
3. To assess the adverse effects of dust pathology on the body of workers.;
4. To give a hygienic assessment of the noise factor;

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5. Evaluate the adverse effects of noise on the body of workers.

4. Main questions of the topic:

1. Industrial dust and its hygienic value.
2. Classification of dust and their hygienic characteristics.
3. The effect of dust on the human body.
4. Methods of studying the effect of dust on the body of workers.
5. Principles of hygienic rationing of industrial dust.
6. Method of measuring dust levels.
7. Industrial noise and its hygienic significance.
8. Classification of noise and their hygienic characteristics
9. The effect of noise on the human body.
10. Methods of studying the effect of noise on the body of workers.
11. Principles of hygienic regulation of industrial noise.
12. Methods of measuring noise levels.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: work in small groups.

6. Types of control to assess the level of achievement of the final result of the discipline:

oral interview, written control

7. Literature:

Electronic resources:


1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортновский, Н. В. Карташева; пер. на англ. яз.
2. General Hygiene: Workbook for medical students / Aliona Tihon; "Nicolae Testemițanu" State Univ. of Medicine and Pharmacy, Gen. Hygiene Dep. – Chișinău: CEP Medicina, 2017. – 247p.

8. Control-questions:


1. What is dust?
2. What is the hygienic value of dust?
3. What methods are used to measure the level of dust?
4. How is the adverse effect of dust pathology on the body of workers assessed?
5. What physical parameters are noise characterized by?
6. How is noise classified by spectral and temporal characteristics?
7. What is the effect of noise on the human body?
8. What is audiometry?
9. What are the principles of industrial noise rationing?
10. How is constant and non-constant noise in the workplace regulated?
11. What are the main means and methods of noise control?

Test questions:

1. Intense noise has a primary impact:
 - a) for hearing acuity
 - b) digestive organs
 - c) visual acuity

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- d) peripheral nervous system
- e) skin sensitivity
- 2. Complaints of workers working in noisy workshops:
 - a) dizziness and headaches
 - b) blurred vision
 - c) nausea
 - d) diarrhea
 - e) leg pain
- 5. Noise level regulation depends on:
 - a) from the frequency response of the noise
 - b) from the state of the body
 - c) from the work shift
 - d) depending on the type of equipment used
 - e) from the concomitant action of vibration
- 6. Measures to prevent the adverse effects of noise are:
 - a) sound insulation of noisy units
 - b) tile wall cladding
 - c) the use of vibration-insulating gaskets
 - d) optimization of microclimatic conditions
 - e) good ventilation of premises
- 7. In the hygienic evaluation of noise in hertz, measure:
 - a) the frequency of sound
 - b) sound volume
 - c) pitch
 - d) the tone of the sound
 - e) intensity
- 8. Which of the chemical compounds can cause poisoning by entering through the skin:
 - a) carbon monoxide, nitrogen oxide
 - b) gasoline
 - d) silicon dioxide
 - e) asbestos
- 9. Bissinosis is pneumoconiosis from exposure to:
 - a) barite
 - b) cotton
 - c) talcum powder
 - d) asbestos
 - d) silicon dioxide
- 10. Dust of what kind of action leads to sclerotic changes in the lungs:
 - a) general toxic
 - b) photosensitizing
 - c) carcinogenic
 - d) sensitizing
 - e) fibrogenic
- 11. Inorganic dust includes:

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- a) wood
- b) cotton
- c) bone
- d) plastic
- e) silicate

12. What determines the duration of the stay of dust in suspension and the depth of penetration into the respiratory tract:

- a) from the chemical composition
- b) the structure of the substance
- c) the dispersion of dust
- d) solubility
- e) adsorption properties

13. Carboconioses are pneumoconioses from the action of:

- a) metal dust
- b) cotton dust
- c) carbon-containing dust
- d) silicate dust
- e) quartz dust

14. Pneumoconiosis from organic dust is:

- a) asbestosis
- b) talcosis
- c) silicosis
- d) byssinosis
- e) siderosis

15. The most common complication of silicosis:

- a) lung cancer
- b) tuberculosis
- c) acute pneumonia
- d) bronchiectatic disease
- e) purulent pleurisy

№ 8


1. Theme: Hygiene of medical equipment. Hygienic assessment of the internal layout of specialized health care units.

2. Purpose: To familiarize students with the situational and general plan of hospitals, with the hygienic requirements for the selection, placement and planning of medical facilities, the advantages and disadvantages of various hospital construction systems.

3. Learning objectives:

The student should know:

1. Principles of planning the situational and general plan of health facilities;
2. Hygienic requirements for the selection of a land plot and the placement of a hospital complex on the territory of a settlement;
3. Hospital construction systems, their advantages and disadvantages;
4. Hygienic requirements for the planning, zoning and landscaping of medical facilities at the hospital site.

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The student should be able to:

1. To assess the correctness of the choice of the land plot and the placement of the hospital on the territory of the settlement according to the situational plan of the hospital;
2. Conduct a hygienic assessment of the hospital master plan;
3. To give an idea of the hygienic requirements for the selection of a land plot and the placement of a hospital complex on the territory of a settlement.

4. Main questions of the topic:

1. Situational plan of the health care facility.
2. The general plan of the medical facility.
3. Hygienic requirements for zoning, building, landscaping and landscaping of the territory.
4. Hygienic requirements for sanitary and technical improvement of health facilities.
5. Hygienic requirements for working and living conditions of medical personnel.
6. Sanitary facilities and sanitary passageways for staff.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: Work in small groups, familiarization with the situational and general plan of medical and preventive organizations.

6. Types of control to assess the level of achievement of the final result of the discipline: The checklist of the oral survey.

7. Literature:

Electronic resources:

1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортновский, Н. В. Карташева; пер. на англ. яз.
2. General Hygiene: Workbook for medical students / Aliona Tihon; "Nicolae Testemițanu" State Univ. of Medicine and Pharmacy, Gen. Hygiene Dep. – Chișinău: CEP Medicina, 2017. – 247p.

8. Control questions: :

1. What are the tasks of hospital hygiene?
2. What are the building systems of hospitals, their advantages and disadvantages?
3. What are the hygienic requirements for heating of medical facilities?
4. What are the hygienic requirements for lighting of medical facilities?
5. What is the sanitary and hygienic regime in medical facilities?
6. What are the principles of the therapeutic and protective regime in medical facilities?
7. What are the hygienic requirements for the working conditions of medical staff?

№ 9


1. Theme: Medical waste, problems of its disposal.

2. Purpose: To familiarize students with the hygienic value of medical waste and the problems of their disposal.

3. Learning objectives:

The student should know:

1. The concept of medical waste;
2. Classes of medical waste;
3. Procedure for collection, temporary storage and removal of medical waste;

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4. Applied methods of disinfection (neutralization) and waste disposal;
5. The necessary documentation on hygienic training of personnel in the rules of epidemic safety in waste management.

The student should be able to:

1. Determine the qualitative and quantitative composition of the generated waste;
2. Determine the classes of medical waste;
3. Determine the procedure for the collection, temporary storage and removal of medical waste;
4. Apply methods of disinfection (neutralization) and waste disposal;
5. Apply the necessary documentation for hygienic training of personnel in the rules of epidemic safety in waste management.

4. Main questions of the topic:

1. The concept of medical waste.
2. Qualitative and quantitative composition of the generated waste.
3. Classes of medical waste.
4. The procedure for the collection, temporary storage and removal of medical waste.
5. Applied methods of disinfection (neutralization) and waste disposal.
6. Necessary documentation on hygienic training of personnel in the rules of epidemic safety in waste management.
7. Methods of medical waste disposal.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: work in small groups.

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of an oral survey, solving situational problems

7. Literature:

Electronic resources:

1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортновский, Н. В. Карташева; пер. на англ. яз.
2. General Hygiene: Workbook for medical students / Aliona Tihon; "Nicolae Testemițanu" State Univ. of Medicine and Pharmacy, Gen. Hygiene Dep. – Chișinău: CEP Medicina, 2017. – 247p.


8. Control questions :

1. What are the classes of medical waste?
2. What is the procedure for collecting medical waste?
3. What is the procedure for storing medical waste?
4. What is the procedure for the removal of medical waste?
5. Name the methods of disinfection (neutralization) and disposal of medical waste used.
6. What is the necessary documentation that guides the hygienic training of personnel to the rules of epidemic safety in waste management?

Situational tasks:

Task № 1

During the sanitary and epidemiological examination of a private medical center by students of a medical university, it was established: the medical center is located in a separate building, the territory is fenced, landscaped, there is a platform for 2 garbage containers, the territory is cleaned.

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All medical personnel have passed a medical examination, are provided with overalls. In the offices, containers for collection and safe disposal are not labeled, waste of class "B" is stored on site for the second day.

Task:

1. What kind of non-compliance with sanitary requirements takes place in the situation described above?
2. Who is responsible for the shortcomings?
3. What measures should the chief specialist of the sanitary and epidemiological station apply in this situation?

Task № 2

During the sanitary and epidemiological examination of a private dental office by specialists of the sanitary and epidemiological station, it was established: the dental office is located on the lower floor of a residential building, the territory is fenced, landscaped, cleaned. All staff underwent a medical examination, provided with overalls. In the offices, containers for collection and safe disposal are not labeled, waste of class "B" is stored on site for the second day.

Task:

1. What action should be applied in this case?
2. Who is responsible for the shortcomings

№ 10

1. Theme: The subject and method of epidemiology. Modern teaching about the epidemic process.

2. Purpose: Formation of students' knowledge of the theoretical foundations of epidemiology, characteristics of the epidemic process, tasks of epidemiology of infectious and non-communicable diseases, classification of infectious (parasitic) diseases, factors of the epidemic process.

3. Learning objectives:

The student should know:


1. Tasks of epidemiology of infectious and non-communicable diseases;
2. Basic theories of epidemiology;
3. Factors of the epidemic process (biological, social, natural).

The student should be able to:

1. To characterize the epidemic process, classification of infectious (parasitic) diseases, factors of the epidemic process
2. Describe the principles of the organization of anti-epidemic measures;
3. Describe the methodology of preventive and anti-epidemic measures.

4. Main questions of the topic:

1. A brief history of the development of epidemiology.
2. Connection of epidemiology with other sciences.
3. Achievements of the epidemiological service and problems in the fight against infectious diseases.
4. Tasks of epidemiology and parasitology.
5. Classification of infectious (parasitic) diseases.
6. Factors of the epidemic process.

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5. The main forms/methods/technologies of training to achieve the final result of the discipline: Working in small groups, discussing the manifestations of the epidemic process, taking into account the causes and conditions of its development; to identify the causes of the development of diseases.

6. Types of control to assess the level of achievement of the final result of the discipline: The checklist of the oral survey

7. Literature:

Electronic resources:

1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортновский, Н. В. Карташева; пер. на англ. яз.
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8. Control-questions:

1. What is epidemiology as the science of the epidemic process?
2. What is medical parasitology?
3. With which sciences is epidemiology most closely interrelated?
4. What are the main achievements of epidemiology in the fight against infectious diseases?
5. What are the main problems in the fight against infectious diseases?
6. What are the main tasks epidemiology solves in the fight against infectious diseases?
7. Which of the domestic and foreign scientists has made the greatest contribution to the development of the science of epidemiology?

Working in small groups

Student groups are divided into small groups. For a certain time (at the discretion of the teacher), groups work according to the task given by the teacher. To do this, the teacher provides participants with question cards. After completing the task, each group answers the questions given by the teacher.

Group 1

1. Achievements of the epidemiological service and problems in the fight against infectious diseases.
2. Classification of infectious (parasitic) diseases.

Group 2


1. Tasks of epidemiology and parasitology.
2. Factors of the epidemic process.

№11

1. Theme: Intestinal infections.

2. Purpose: formation and improvement of theoretical knowledge and practical skills of students on etiology, characteristics of the epidemic process and principles of organization of epidemiological surveillance in typhoid, paratyphoid, escherichiosis and shigellosis, salmonellosis, campylobacteriosis.

3. Learning objectives:

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The student should know:

1. Principles of antiepidemic and preventive measures for typhoid fever, paratyphoid A and B;
2. Principles of antiepidemic and preventive measures for salmonellosis;
3. Etiology of escherichiosis and shigellosis;
4. Principles of antiepidemic and preventive measures for escherichiosis, campylobacteriosis and shigellosis.

The student should be able to:

1. Tell about the etiology of typhoid fever, paratyphoid A and B, salmonellosis;
2. To characterize the epidemic process in typhoid fever, paratyphoid A and B, salmonellosis;
3. To evaluate the principles of epidemic surveillance in typhoid fever, paratyphoid A and B, salmonellosis;
4. To characterize the etiology of escherichiosis and shigellosis;
5. To characterize the characteristics of the epidemic process in escherichiosis, intestinal yersiniosis and shigellosis and campylobacteriosis.
6. Describe the principles of preventive and antiepidemic measures for escherichiosis, intestinal yersiniosis and shigellosis and campylobacteriosis.

4. Main questions of the topic:

1. Definition, etiology of typhoid fever, paratyphoid A and B, salmonellosis.
2. Epidemiology, sources of infection in typhoid fever, paratyphoid A and B, salmonellosis.
3. Transmission mechanism, factors and transmission routes in typhoid fever, paratyphoid A and B, salmonellosis.
4. Epidemiological features of typhoid fever, paratyphoid A and B, salmonellosis.
5. Antiepidemic and preventive measures for typhoid fever, paratyphoid A and B, salmonellosis.
6. Organization of epidemiological surveillance for typhoid fever, paratyphoid A and B, salmonellosis.
7. Epidemiology, sources of infection in escherichiosis, intestinal yersiniosis and shigellosis and campylobacteriosis.
8. Mechanism of transmission, factors and ways of transmission in escherichiosis, intestinal yersiniosis and shigellosis and campylobacteriosis.
9. Preventive and antiepidemic measures for escherichiosis and shigellosis and campylobacteriosis.


5. The main forms/methods/technologies of training to achieve the final result of the discipline: Work in small groups, to analyze epidemiological features and a set of preventive and anti-epidemic measures carried out in acute intestinal infections.

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of an oral survey, solving situational problems.

7. Literature:

Electronic resources:

1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортновский, Н. В. Карташева; пер. на англ. яз.
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8. Control - tasks:

Situational task № 1

A 38-year-old patient, a manager, entered the therapeutic department on the 10th day of illness. diagnosed with pneumonia. $t^{\circ}37.1-37.8^{\circ}\text{C}$. Everyone in the family is healthy. The mother is a chronic bacterial carrier of typhoid bacteria. In the hospital for 5 days, the patient's condition did not improve. 5 ml of blood was taken for the production of RPG. The positive result of the serological examination became known on the 3rd day. Bacteriological examination of the patient is not assigned.

1. What needs to be done to clarify the diagnosis, to work in the hearth?
2. What inaccuracies in the work are allowed by the doctor of the polyclinic and hospital?

Situational task № 2

The employee of the confectionery shop is 36 years old, sick for 6 days. Diagnosis of typhoparathyphoid disease? Blood, urine, and feces were taken for bacteriological examination. The patient was left at home until the results of the study were received. Husband is a plant engineer. 4-year-old son - attends kindergarten, lives in a 1-room apartment.

1. What anti-epidemic measures should be taken against the patient and contact persons?

Situational task № 3

The diagnosis of "acute dysentery" was established according to clinical data by a student who has been ill for 3 days. The patient was left at home. In the family: mother is a teacher, father is a journalist, sister is a 9th grade student. 3-room apartment of a comfortable house.

What anti-epidemic measures should be carried out in the hearth?

Situational task № 4


The kindergarten teacher was discharged from the infectious diseases hospital after suffering acute dysentery.

1. What is the duration of the dispensary observation of the patient?
2. When can she start working?

Situational task № 5

Patient E, 27 years old, arrived 15 days ago from a summer vacation from the lake, and began to notice a deterioration in her general health, lethargy, weakness, headache. During the last day, he notes periodic rises in body temperature to high figures of $39-40^{\circ}\text{C}$, which then independently decrease to $37-38^{\circ}\text{C}$, nausea, heaviness in the epigastrium, flatulence, bloating, frequent stools. Rash on various parts of the body (abundant, polymorphic, constantly falling asleep). This condition is noted for the first time and connects it with the use of water from an open reservoir.

1. Your preliminary diagnosis?
2. Is hospitalization mandatory?
3. What complications are possible with this disease?
4. Make a plan for the examination of the patient

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Situational task № 6

A 2-year-old child went to an infectious diseases hospital in winter with complaints of vomiting, liquid watery, foamy, without impurities stool 4-5 times a day. He was noted to be restless, coughing. The polyclinic doctor suspected a rotavirus infection.

Describe the anti-epidemic measures.

№12

1. Theme: Viral hepatitis

2. Purpose: to study the etiology, characteristics of the epidemic process and the principles of the organization of epidemiological surveillance of hepatitis A and E, B, C, D.

3. Learning objectives:

The student should know:

1. Etiology of viral hepatitis.
2. Epidemiology of viral hepatitis with fecal-oral transmission mechanism (A, E).
3. Epidemiology of viral hepatitis with contact and artificial transmission mechanisms (B, C, D).

The student should be able to:

1. To characterize the etiology of viral hepatitis with a fecal-oral transmission mechanism (A, E) and with contact and artificial transmission mechanisms (B, C, D).
2. To characterize the characteristics of the epidemic process in viral hepatitis.
3. Evaluate the principles of preventive measures for viral hepatitis (A, E, B, C, D).

4. Main questions of the topic:

1. Definition, etiology of viral hepatitis.
2. Epidemiology, sources of infection in viral hepatitis.
3. Mechanism of transmission, factors and ways of transmission in viral hepatitis.
4. Epidemiological features of viral hepatitis.
5. Preventive and anti-epidemic measures and epidemiological surveillance in viral hepatitis.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: work in small groups, consider the etiology, epidemiology, principles of prevention and treatment of viral hepatitis.

6. Types of control to assess the level of achievement of the final result of the discipline: The checklist of the oral survey, the preparation of test tasks.


7. Literature:

Electronic resources:


1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортоновский, Н. В. Карташева; пер. на англ. яз.
2. General Hygiene: Workbook for medical students / Aliona Tihon; "Nicolae Testemițanu" State Univ. of Medicine and Pharmacy, Gen. Hygiene Dep. – Chișinău: CEP Medicina, 2017. – 247p.

8. Control tests:

1. Viral hepatitis (A, B, C, D, E) are:
 - a) anthroponoses;

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- b) zoonoses;
 - c) anthroozoonoses;
 - d) sapronoses.
 - e) saprophytes
2. A patient with hepatitis A is dangerous as a source of infection in:
- a) the last 3 weeks of incubation;
 - b) the last 7-10 days of incubation;
 - c) the pre-jaundice period;
 - d) jaundice period;
 - e) the period of convalescence.
3. The diagnosis of hepatitis A was made on the 1st day of jaundice to the bus driver. The patient is hospitalized. Family: wife, an engineer of an electric lamp factory, daughter attends kindergarten, 2 months ago she was injected with normal human immunoglobulin; son is 8 years old, 10 days ago he went to a health camp. What should be done:
- a) disinfect the apartment;
 - b) observe all family members for 35 days;
 - c) observe family members, except the son, for 35 days;
 - d) introduce normal human immunoglobulin to the son and daughter;
 - e) to introduce normal human immunoglobulin only to the son;
4. A patient with an acute form of hepatitis B is dangerous as a source of infection in:
- a) during the entire incubation period;
 - b) the last 2-8 weeks of the incubation period;
 - c) the prodromal period;
 - d) the jaundice period (the height of the disease);
 - e) the period of convalescence.
5. For hepatitis B infection, the most significant biological substrates are:
- a) blood;
 - b) urine;
 - c) sperm;
 - d) sweat;
 - e) bile;
6. Factors of transmission of hepatitis B virus can be the following personal hygiene items when used by several family members:
- a) toothbrush;
 - b) shaving device;
 - c) manicure accessories;
 - d) washcloth;
 - e) comb;
7. The source of hepatitis C infection is:
- a) a person with an acute form of hepatitis C;
 - b) a person with a chronic form of hepatitis C;
 - c) blood serum of a person infected with the hepatitis C virus;
 - d) carrier of hepatitis C virus;
 - e) blood plasma.

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№13

1. Theme: Disinfection, sterilization, disinfection, deratization.

2. Purpose: to teach students to evaluate the types and methods of disinfectants; to study the sanitary rules «Sanitary and epidemiological requirements for the organization and conduct of disinfection, disinsection and deratization».

3. Learning objectives:

The student should know:

1. Types of disinfectants;
2. Methods of manufacture, production, storage, transportation, sale, application of funds;
3. Methods of quality control of disinfection and sterilization ;
4. The methodology of possession of sanitary and epidemiological requirements for the organization and conduct of disinfection, disinsection and deratization.

The student should be able to:

1. Own the methods of manufacture, production, storage, transportation, sale, use of funds;
2. To carry out a quality control procedure for disinfection and sterilization ;
3. Use the sanitary and epidemiological requirements for the organization and conduct of disinfection, disinsection and deratization.

4. Main questions of the topic:

1. Disinfectants, types and methods.
2. Methods of manufacture, production, storage, transportation, sale, use of funds.
3. Methods of quality control of disinfection and sterilization.
4. Methods of possession of sanitary and epidemiological requirements for the organization and conduct of disinfection.
5. Methods of possession of sanitary and epidemiological requirements for the organization and conduct of disinsection.
6. Methods of possession of sanitary and epidemiological requirements for the organization and conduct of deratization.
7. Sanitary rules "Sanitary and epidemiological requirements for the organization and conduct of disinfection, disinsection and deratization".

5. The main forms/methods/technologies of training to achieve the final result of the discipline: Work in small groups, to form an idea of the methods and modes of disinfection, disinsection, sterilization, deratization.


6. Types of control to assess the level of achievement of the final result of the discipline: The checklist of the oral survey, the preparation of test tasks.

7. Literature:

Electronic resources:

1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортновский, Н. В. Карташева; пер. на англ. яз.
2. General Hygiene: Workbook for medical students / Aliona Tihon; "Nicolae Testemițanu" State Univ. of Medicine and Pharmacy, Gen. Hygiene Dep. – Chișinău: CEP Medicina, 2017. – 247p.

8. Control-questions:

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1. What types of disinfectants do you know?
2. What are the methods of manufacture, production, storage, transportation, sale, use of funds?
3. How is the quality control of disinfection and sterilization carried out?
4. What are the sanitary and epidemiological requirements for disinfection, disinfection and deratization?

№14

1. Theme: Immunoprophylaxis of infectious diseases

2. Purpose: to familiarize students with the role of immunoprophylaxis in the system of protection against epidemics, the requirements for vaccines.

3. Learning objectives:

The student should know:

1. Immunoprophylaxis and the role of immunoprophylaxis;
2. Types of vaccines;
3. Indications for vaccinations.

The student should be able to:

1. Analyze the effectiveness of immunoprophylaxis;
2. Organize preventive and anti-epidemic measures;
3. Work with legislative and regulatory legal acts

4. Main questions of the topic:

1. Indications and contraindications to vaccination.
2. National calendar of preventive vaccinations.
3. Storage and transportation conditions of medical immunobiological preparations

5. The main forms/methods/technologies of training to achieve the final result of the discipline: Working in small groups, forming an idea of the theoretical foundations of immunoprophylaxis.

6. Types of control to assess the level of achievement of the final result of the discipline: The checklist of the oral survey.

7. Literature:

Electronic resources:


1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортновский, Н. В. Карташева; пер. на англ. яз.
2. General Hygiene: Workbook for medical students / Aliona Tihon; "Nicolae Testemițanu" State Univ. of Medicine and Pharmacy, Gen. Hygiene Dep. – Chișinău: CEP Medicina, 2017. – 247p.

8. Control-questions:

1. Organization of vaccination work.
2. Vaccination preparations used in the Republic of Kazakhstan;
3. The requirement for the work of vaccination.
4. List of medical contraindications to preventive vaccinations.

№15

1. Theme: Respiratory tract infections.

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2. Purpose: to study the etiology, characteristics of the epidemic process and the principles of the organization of epidemiological surveillance for influenza, measles, rubella, chickenpox, mumps, whooping cough and paracoccussis.

3. Learning objectives:

The student should know:

1. Characteristics of the epidemic process of influenza, measles, rubella, chickenpox, mumps, whooping cough and paracoccussis;
2. Principles of the organization of anti-epidemic and preventive measures for measles, rubella, chickenpox, mumps, whooping cough and paracoccus.

The student should be able to:

1. To characterize the etiology of influenza, measles, rubella, chickenpox, mumps, whooping cough and paracoccussis;
2. To characterize the epidemic process and the principles of anti-epidemic measures at influenza, measles, rubella, chickenpox, mumps, whooping cough and paracoccussis;
3. Describe the principles of preventive measures for measles, rubella, chickenpox, mumps, whooping cough and paracoccussis.

4. Main questions of the topic:

1. Definition, etiology of influenza, measles, rubella, chickenpox, mumps, whooping cough and paracoccussis.
2. Epidemiology, sources of infection in influenza, measles, rubella, chickenpox, mumps, whooping cough and paracoccussis.
3. Mechanism of transmission, factors and ways of transmission in influenza, measles, rubella, chickenpox, mumps, whooping cough and paracoccussis.
4. Susceptibility and immunity to measles, rubella, chickenpox, mumps, whooping cough and paracoccussis.
5. Epidemic features of influenza, measles, rubella, chickenpox, mumps, whooping cough and paracoccussis.
6. Pathogenesis, clinic of influenza, measles, rubella, chickenpox, mumps, whooping cough and paracoccussis.
7. Prevention and control measures for influenza, measles, rubella, chickenpox, mumps, whooping cough and paracoccussis.
8. Anti-epidemic measures for influenza, measles, rubella, chickenpox, mumps, whooping cough and paracoccussis.


5. The main forms/methods/technologies of training to achieve the final result of the discipline: Work in small groups work in small groups, identifying the causes and conditions of the occurrence and spread of infectious diseases of the respiratory tract.

6. Types of control to assess the level of achievement of the final result of the discipline: The checklist of the oral survey.

7. Literature:

Electronic resources:

1. Золотарева, А. В. General Hygiene: lectures for students in English medium – Общая гигиена: курс лекций для иностранных студентов, обучающихся на английском языке / А. В. Золотарева, В. Н. Бортновский, Н. В. Карташева; пер. на англ. яз.

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2. General Hygiene: Workbook for medical students / Aliona Tihon; "Nicolae Testemițanu" State Univ. of Medicine and Pharmacy, Gen. Hygiene Dep. – Chișinău: CEP Medicina, 2017. – 247p.

8. Control-questions:

1. Epidemiological characteristics of respiratory tract infections.
2. Characteristics of the source of infection.
3. Conditions for the implementation of the transmission mechanism.
4. Manifestations of the epidemic process.
5. Focus of preventive and anti-epidemic measures