

**List of practical skills, which the student must have in accordance with requirements of speciality 7.110101 „Curative medicine”, at the practice-oriented state exam on hygiene**

**Propedeutics of hygiene:**

1. Research of the premises microclimate.
2. Hygienic assessment of the microclimate in the premises (inhabited, industrial, class room, ward, operation room).
3. Determination of the ventilation efficiency of the indoor air according to carbon dioxide content (CO<sub>2</sub>) using the Lungcke-Cekkendirf-Prokhorov method.
4. Assessment of the natural lighting in the premises using geometric and lighting engineering techniques.
5. Determination of the illumination level using luxmeter.
6. Calculation of the artificial illumination of different sources (incandescent and luminescent lamps) according to the “Watt” technique.
7. Calculation of the brightness according to the data on illumination and reflection coefficient.
8. Calculation of actual and necessary ventilation volume.

**Radiation hygiene:**

1. Application of calculative methods for assessment of the radiation safety and individual irradiation doses during operations with radionuclides and other sources of ionizing radiation.
2. Calculation of the safety parameters from external radiation during operation with gamma radiation.
3. Working out the radiation control program for the X-ray and radiological departments in hospitals.
4. Assessment of radiation safety in the X-ray and radiological departments of hospitals based on the data of the sanitary inspection and dosimetric control.
5. Measurement of the absorbed dose rate in the air indoors and on the working surface of the personnel in the X-ray and radiological departments of hospitals.
6. Determination of the radioactive pollution of the working surfaces and personnels' working clothes in the radiological departments of hospitals.
7. Analysis and assessment of the radiation parameters of building materials.
8. Analysis and assessment of the radiation parameters of inhabited premises in accordance to the radiation safety requirements while putting it into operation.
9. Assessment of the radiation pollution of foodstuffs and drinking water on territories, which are radioactively polluted after Chernobyl accident.

**Labour hygiene:**

1. Techniques of measurement of parameters of industrial microclimate.
2. Technique of measurement of the illumination level on working places.
3. Main stages of the air environment research in the industrial premises for determination of hazardous substances and dust content.
4. Principal techniques for the air sampling in industry.
5. Principal methods of the air analysis for determination of hazardous substances content in it.
6. Methods of organization and carrying out of medical examinations.
7. Methods of investigation of acute and chronic occupational poisonings and diseases. Main reported and recorded documents.
8. Methods of the preventive sanitary inspection in industrial premises.
9. Methods of carrying out of regular sanitary inspection in industrial premises.
10. Method of composition of annual report on the environmental factors, which impact on human health (labour hygiene branch).

**Nutrition hygiene:**

1. Technique of assessment of the nutritional state of a patient.
2. Main criteria for the nutritional state assessment.
3. Clinical signs and biochemical indices of inadequate nutritional state.
4. Methods of correction of the nutritional state of the patient.
5. Determination of principles of alimentary correction of the nutritional state and health taking into account pathogenetic mechanisms of diseases.
6. Technique of composition of adequate diet which corresponds to individual nutritional state and health of a patient.
7. Methods of rational correction of the diet in accordance to changes of a patient health.
8. Working out of the diet recommendations for specific patient in his remission to prevent the exacerbation (acute attack) of the disease.
9. Diet peculiarities for patients with different diseases (atherosclerosis and its aftereffect, cardio-vascular, gastro-intestinal, liver and pancreas diseases, metabolic diseases, cancer pathology).

**Hygiene of children and adolescents:**

1. Assessment of the child physical development using complex method.
2. Complex assessment of the child health state and identification of his/her health group.
3. Research and assessment the following indices of physical development: somatometric, somatoscopic, physiometric.
4. Carry out and assess the functional state of the nervous system based on the data of correction test, thermometry, recent (short-term) memory volume, Shulte-Platov test.

5. Work out the day regimen for children of different ages, assess the actual day regimen of a child, adolescent.
6. Assessment of the child functional readiness to training at school according to medical and psycho-physiological criteria.
7. Hygienic assessment of the educational process in pre-school educational establishments and school.
8. Hygienic assessment of children provision with educational furniture in class room and workshop.
9. Hygienic assessment of organization of physical and labour training at school.
10. Hygienic assessment of places where physical training takes part in pre-school educational establishments.
11. Hygienic assessment of educational schedule at school.
12. Carrying out of the medical occupational selection, medical occupational consultation to an adolescent.
13. Working out of the program of deepen medical examination of children of different age.

### **Epidemiology:**

1. Determination of morbidity level prognosis for the next year according to the trend of long-term sickness rate evolution.
2. Determination of contamination level of the population according to the sampled laboratory data and its hygienic assessment.
3. Filling in an annual „Report on certain infectious and parasitic diseases” (form # 2).
4. Filling in a Register of infectious diseases (form # 60).
5. Filling in an emergency report on infectious or parasitic disease identified at first time (form # 58).
6. Filling in a primary vaccination card (form # 63) and individual card of child development (form # 112).
7. Determination of coefficient of vaccination epidemiological efficiency and its assessment.
8. Substantiation of the list of anti-epidemic steps in the infectional nidus.
9. Drawing a column diagram for obvious expression of epidemiological data and identification of risk factors and groups for different diseases.
10. Samples for bacteriological research on diphtheritic infection.
11. Determination of seasonal coefficient of annual morbidity dynamics (sickness rate) on the diagram, which represents the month distribution of the morbidity, and assessment of this coefficient.
12. Assessment of quality of disinfective and sterilizing measures against hepatitis A and B.
13. Carrying out of anti-epidemic measures in nidi of gastro-intestinal, respiratory and blood infections.

**List of devices, which the student has to know how to operate at the practically oriented state exam on hygiene**

1. Assmann psychrometer.	10. Revolving-cup anemometer
2. August psychrometer.	11. Revolving-valve anemometer.
3. Hygrometer.	12. Acrinometer.
4. Thermometer electric.	13. Luxmeter.
5. Aneroid barometer.	14. Roentgenometer medical.
6. Catathermometer.	15. Individual dosimeters.
7. Hygrograph.	16. Indicator of radioactive pollution.
8. Barograph.	17. Electroaspirator.
9. Thermograph.	18. Devices for determination of the carbon dioxide content in the air.