ODESSA NATIONAL MEDICAL UNIVERSITY

DEPARTMENT OF OCCUPATIONAL PATHOLOGY AND FUNCTIONAL DIAGNOSTICS AND PHTISIOPULMONOLOGY.

APPROVE

Vice-rector for scientific and pedagogical work

_____ Eduard Buryachkivskyi

September 4, 2023

PRACTICUM

for independent training of higher education applicants

from the academic discipline

"Occupational diseases"

Odessa

Introduction

The workshop was prepared by the staff of the Department of Occupational Pathology and Functional Diagnostics and Phthisiopulmonology in order to help applicants of higher education in the 6th year of international faculty to better master the discipline "Occupational Diseases".

The workshop includes control theoretical questions, test tasks, situational and clinical tasks related to:

- legislative regulation of assistance to patients with occupational pathology;
- spread,
- etiology and pathogenesis,
- clinics, diagnostics and treatment of occupational diseases;
- prevention of occupational diseases;
- examinations of working capacity for occupational diseases.

Tasks are compiled, divided into topics and content modules in accordance with the approved work program for the educational discipline "Occupational diseases".

Solving tasks can be used by students to self-check their knowledge of the discipline, as well as by teachers to check applicants' independent work on the topics provided by the work program.

Approved by the meeting of the department of professional pathology and functional diagnostics and phthisiopulmonology, protocol No. 1 dated September 4, 2023.

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Department of occupational pathology and functional diagnostics and phthisiopulmonology.

Content module 1.General issues of occupational pathology. Diseases caused by exposure to industrial aerosols

Protocol for testing knowledge by topic"General issues of occupational pathology"

Theoretical questions	**Test tasks**
1.Define occupational diseases and indicate the main differences between occupational diseases 2. List the main groups of occupational diseases a) b) c) d) e) f) g) 3. Indicate into which stages the process of establishing the occupational nature of the disease is divided 4. List the documents that should be analyzed to establish the connection between the disease and the production activity	1. 3. The main purpose of the occupational pathology service is: a) prevention of the development of prof. diseases; b) treatment of patients with prof. pathology; c) establishing a connection between the disease and production conditions; d) rehabilitation of disabled people as a result of occupational diseases. 2. At what level is the connection between the employee's illness and his production activity confirmed? a) Regional health care administration; b) Research Institute of Labor Medicine; c) Academy of Medical Sciences; d) Ministry of Health. 3. What work experience will indicate the possible occupational nature of the disease? a) 20 years of total experience, 3 years of work at the last place of work with harmful factors; b) 17 years of total experience, 4 years of work at the last place of work with harmful factors; c) 13 years of total experience, 11 years of work with harmful factors; 2 years of work at the last place under favorable conditions; d) 10 years of total work experience.
Situational task	**Clinical problem**
1. During the periodic medical examination of the miner, on the X-ray examination of the chest, the same type of round shadows were found in the lower parts of the lungs on both sides against the background of a deformed bronchovascular pattern. Who and when should decide the issue of the connection	1. An employee of a machine-building enterprise went to the hospital with complaints of headache, shortness of breath, pain in the heart area. It is known from the anamnesis that the patient works in conditions of increased vibration. Objectively, blood pressure is 170/100, heart rate is 95

between the disease and working conditions? Who should write the job description and by what time?	beats/min. Establish a preliminary diagnosis and resolve the issue of the possible occupational nature of the disease.
Acquirer Evaluation Teacher	

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Protocol for testing knowledge by topic "General issues of occupational pathology. Medical examinations"

Theoretical questions	**Test tasks**
1. Justify what causes the need for medical examinations of healthy workers? 2. Name the types of medical examinations you know 3. Name the main documents that regulate medical examinations of employees. 4. List the main categories of workers to be reached by medical examinations: a) b) c) d) 5. Specify what conclusions the commission can make after completing the medical examination?	1. What is the main task of periodic medical examination of workers who are exposed to the influence of harmful production factors? a) Detection and early preliminary diagnosis of occupational diseases; b) Detection of diseases that are contraindicated for continuing work under the influence of harmful factors; c) Hygienic assessment of the state of the production environment; d) Reduction of morbidity with temporary loss of working capacity. 2. During the medical examination, which of the studies is conducted in a mandatory manner for all workers? a) general analysis of urine; b) general analysis of sputum; c) general blood test; d) general analysis of feces. 3. In which document are the results of the medical examination of workers who are exposed to work with harmful production factors entered? a) medical book; b) ambulatory card; c) medical history; d) employee card.
Situational task	**Clinical problem**
1. During a periodic medical examination, a flour mill worker was diagnosed with chronic dust bronchitis 2nd stage. from exposure to organic dust, stage of remission, LH0. The worker was found fit for work with restrictions. What recommendations can the commission offer to this worker?	1. During the initial medical examination before hiring in the conditions of an overheated microclimate, a woman complains of nausea, periodic vomiting, weakness, a delay of menstruation for 4 weeks, during the examination by a gynecologist, the uterus has increased in size. Express test for chorionic gonadotropin is positive. Establish a preliminary diagnosis. It will

	resolve the issue of the possibility of women working in harmful conditions.
AcquirerEvaluation Teacher	

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Protocol for testing knowledge by topic "Pneumoconioses, chronic bronchitis and chronic obstructive pulmonary disease of dust etiology."

Silicosis

Theoretical questions	**Test tasks**
1. Epidemiology of silicosis. 2.Basic theories of the development of silicosis. a) b) c) 3. Specify the clinical, Rh-logical, spirographic signs of the first stage of silicosis Clinic Rh FEB 4. Specify the clinical, Rö-logical and spirographic signs of the III stage of silicosis. Clinic Rh FEB 5. List the main complications of silicosis 6. Examination of working capacity for silicosis 1st stage. 2nd stage 3rd stage	1. What size dust containing silicon oxide most contributes to the development of silicosis? a) 1 μm or less b) 2-5 μm c) 6-10 μm d) 10 μm or more 2. In the clinic of occupational diseases, the patient was first diagnosed with silicosis stage 1, 2/1, s/t, DN 1 st. What expert decision should be made in this case? a) Send to MSEK to determine the percentage of loss of working capacity; b) Send to MSEK to establish 3 groups of disabilities; c) Capable of working in his profession; d) Send to MSEK to establish 2 groups of disabilities; 3. A 40-year-old man has been working in the production of building materials for 10 years. During the medical examination, signs of the initial stages of pneumofibrosis were revealed. What disease can complicate silicosis? a) Tuberculosis; b) Hammen-Rich syndrome; c) Lung sarcoidosis; d) Lung cancer.
Situational task	**Clinical problem**
1. Foundry molder, 45 years old, 14 years of professional experience. Complains of shortness of breath during physical exertion, dry cough, chest pain. Hard breathing, isolated dry wheezes are heard above the	1. Patient M., 35 years old, working as a miner for 8 years, was diagnosed with silicosis of the first degree, interstitial form. Chronic dust bronchitis, moderate emphysema of the lungs, without violation of

lungs. On the X-ray examination of the chest organs, an increase and deformation of the bronchovascular pattern is noted, in the lower lung fields there are round shadows of the same type with a diameter of up to 3 mm. The roots of the lungs are compacted. Name the most likely cause of pneumofibrosis.	FEB. Assign for examination and treatment, provide work recommendations.
Acquirer Evaluation Teacher	

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Protocol for testing knowledge by topic "Pneumoconioses, chronic bronchitis and chronic obstructive pulmonary disease of dust etiology."

Anthracosis

Theoretical questions	**Test tasks**
1. Epidemiology and pathogenesis of anthracosis. 2. Specify the clinical, X-ray and spirographic signs of anthracosis of the 1st degree. Clinic Rö FEB 3. Specify the clinical, X-ray and spirographic signs of anthracosis of the II century. Clinic Rö FEB 4. Specify the clinical, X-ray and spirographic signs of anthracosis of the III century. Clinic Rö FEB 5. Examination of work capacity depending on the stage of anthracosis 1st stage 2nd stage 3d stage	1. To which group of pneumoconiosis does anthracosis belong? a) Silicosis/Silicatosis b) Metalloconiosis c) Carboconiosis d) Pneumoconiosis from organic dust 2. Which dust is the most dangerous for coniosis? a) Lead b) Coal c) Wooden d) Sugar 3. What kind of pneumoconiosis can develop in workers in the production of electrodes? a) Silicosis b) Anthracosis c) Asbestosis d) Talcosis 4. What course of anthracosis most often takes place in the conditions of modern production? a) Acute b) Rapidly progressive c) Slowly progressive d) Regressive
Situational task	**Clinical problem**
1. A 45-year-old man has been working in a coal mine for 20 years. He went to the polyclinic with complaints of a cough with dark-colored mucous sputum, chest pain, and shortness of breath. From the anamnesis of the disease, it is known that he has been sick for 5 years. During the last month, sputum of	1. What treatment should be carried out and what labor recommendations should be given to a coal mine worker with 15 years of work experience in conditions of high dustiness, who is suffering from stage I anthracosilicosis, chronic bronchitis with bronchiectasis, emphysema of the lungs of the

dark color appeared, shortness of breath. Objectively: the chest is expanded. Wet wheezes are heard in the lungs against the background of weakened breathing. The lower edge of the lungs is assumed. The mobility of the lower edge of the lungs is limited. Percussion: box sound. What form and degree of pneumofibrosis will we find during X-ray examination?	2nd-3rd degree, respiratory failure of the 3rd degree, pulmonary heart 2B-3 st.?
Acquirer	Evaluation Teacher

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Protocol for testing knowledge by topic "Pneumoconioses, chronic bronchitis and chronic obstructive pulmonary disease of dust etiology."

"Chronic bronchitis of dust etiology"

Theoretical questions	**Test tasks**
1. Workers of which specialties have the highest risk of developing chronic dust bronchitis?	1. One of the links of the pathogenesis of chronic dust bronchitis is: a) violation of propulsive motility; b) violation of creatinine clearance; c) violation of mucociliary clearance; d) violation of impulse conduction along the left leg of the bundle of His.
2. What links does the pathogenesis of chronic dust bronchitis include?	2. Treatment of the obstructive form of chronic dust bronchitis includes the following means, in addition to: a) inhalation of cholinolytics; b) decoctions of breast collections; c) aerofitotherapy; d) respiratory analeptics.
3. What features of the clinical course of chronic dust bronchitis do you know?	3. During a periodical medical examination, the worker of the machine-building enterprise was diagnosed with chronic dust bronchitis II stage, LN I-II stage, pulmonary emphysema, chronic pulmonary heart disease. What decision should the commission make? a) suitable for continued work; b) suitable for continued work under the conditions of limiting contact with dust; c) unsuitable for continued work, needs rational employment d) unfit to continue working, needs to establish a disability group.
4. What complications of chronic dust bronchitis do you know?	
5. State the measures to prevent the development of chronic dust bronchitis at work.	
Situational task	**Clinical problem**
1. Patient V., 43 years old, 18 years of experience as a miner, complains of cough with sputum, shortness of breath, and chest pain during a periodic medical examination.	1. Patient A. 38 years old, 11 years of work experience as a combine harvester, applied to the district hospital with complaints of periodic cough with sputum, shortness of

When objectively examined - signs of bronchial obstruction and emphysema. It is known from the anamnesis that the patient has been suffering from chronic dust bronchitis for the past 5 years. Specify the necessary research and criteria for differential diagnosis of advanced chronic bronchitis and initial forms of pneumoconiosis.	breath during physical exertion, rapid fatigue. When objectively examined - signs of minor bronchial obstruction and mild emphysema. X-ray - a slight increase in the lung pattern. What preliminary diagnosis can be established, what treatment was carried out and what work recommendations were given to this patient?
Acquirer Evaluation Teacher	

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Content module 2. Diseases caused by exposure to chemical factors. Occupational diseases are associated with the action of biological factors

Protocol for testing knowledge by topic"Professional neurotoxicosis**. Mercury intoxication".**

Theoretical questions	**Test tasks**
1. In which industries does mercury poisoning occur? 2. Which poisons include mercury and its derivatives? 3. What is the leading clinical syndrome in chronic mercury intoxication? 4. What changes in the psyche develop against the background of chronic mercury intoxication? 5. What contraindications to working with mercury do you know? 6. Examination of work capacity depending on the stage of chronic mercury intoxication: 1 stage. 2 nd stage 3rd stage	1. What are not medical contraindications to employment in contact with mercury? a) Anemia b) Psychosis c) Dental diseases d) Vegetative disorders 2. Which of the listed manifestations of chronic mercury poisoning occur more often in women? a) Violation of the menstrual cycle. b) Hyperfunction of the thyroid gland. c) The percentage of the development of psychoses is increasing. d) The number of erythrocytes and hemoglobin concentration increases. 3. Patient K. works at a factory for the production of X-ray tubes. After the accident at the plant, she felt sharp weakness, nausea, vomiting, and a metallic taste in her mouth. Diagnosis: a) Poisoning (acute) by mercury vapors. b) Benzene poisoning. c) Manganese poisoning. d) Acute POC poisoning
Situational task	**Clinical problem**
1. A fitter repairing control and measuring devices (10 years of work experience) came to the polyclinic with complaints of abdominal pain, diarrhea, sharp weakness, swelling and pain in the gums, a metallic taste in the mouth. For several days, he carried out urgent repairs of devices, after which the	1. A 33-year-old woman has been working for 11 years at a factory for the production of mercury rectifiers and mercury pumps. He complains of headache, dizziness, loss of memory, irritability, small and frequent tremors of the fingers of outstretched hands, eyelids and tongue, bleeding gums,

mentioned complaints appeared. During the examination: the abdomen is painful when palpating segments of the small and large intestines, blood in the stool. Swelling of the gums, the presence of ulcers on them, increased salivation. Irritation of tendon reflexes. A diagnosis of chronic mercury poisoning was established. How should we confirm the occupational nature of the disease?	hypersalivation, gingivitis. The preliminary diagnosis is mild chronic mercury poisoning. Appoint for examination, treatment and provide recommendations for further work with mercury?
Acquirer Evaluation Teacher	

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Protocol for testing knowledge by topic "Lead intoxication".

Theoretical questions	**Test tasks**
1. At which industries can lead intoxication occur? 2. What is the toxic effect of lead on the body? 3. How many degrees of lead intoxication do you know? 4. Clinical syndromes of moderate chronic lead poisoning: 5. List the diagnostic criteria for chronic lead poisoning: 6. What contraindications to working with lead and its compounds do you know?	1. Antidotes are used to treat lead intoxication: a) Thetacin - calcium, pentacin. b) Amyl nitrite. c) Naloxone 0.4-2 mg IV d) Atropine. 2. In which cells and organs is the exchangeable fraction of lead located? a) Liver, kidneys, erythrocytes b) Brain, leukocytes, bones c) Nerves, liver, kidneys d) Urogenital system 3. What industrial poisons cause a violation of the synthesis of porphyrins, heme and the development of hypersideremic anemia? a) Lead b) Manganese c) Benzene d) Arsenic 4. What type of damage to the nervous system is inherent in lead intoxication? a) vegetative-sensory polyneuropathy; b) sensory-motor polyneuropathy; c) intentional tremor; d) antibrachial paralysis.
Situational task	**Clinical problem**
1. A 45-year-old woman came to the therapist for an appointment with complaints of non-sharp spasm-like pain in the abdomen, delay in defecation, alternating with its weakening, a moderate increase in blood pressure. The patient also notes rapid fatigue, general weakness, increased irritability, and	1. A 42-year-old man was brought to the emergency department with complaints of sharp, diffuse, spasm-like pain in the abdomen, especially in the area of the abdominal plexus. From the anamnesis, it was found that the patient has been working at a crystal manufacturing plant for 8 years.

headache. From the anamnesis of life, it is known that the woman has been working in the production of printing inks for 2 years. Establish a preliminary diagnosis. What diseases should be differentially diagnosed and what will be the criteria for an occupational disease?	Objectively: the tongue is coated, the abdominal wall is tense, retracted, when pressing on the stomach, the pain decreases, dense loops of intestines are palpated. Blood pressure 180/100 mm Hg. Art. In the blood: a sharply increased number of reticulocytes and erythrocytes with basophilic granularity, a decrease in hemoglobin content. Diagnosis: Chronic lead intoxication, intestinal colic. Prescribe treatment and conduct a performance examination
Acquirer Evaluation	Teacher

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Protocol for testing knowledge by topic

"Intoxication with benzene, amino and nitro compounds of benzene"

Theoretical questions	**Test tasks**
1. Prevalence of poisoning with benzene and its derivatives. 2. Specify the mechanism of action of benzene on the human body. 3. Describe the clinic of chronic poisoning with aromatic carbohydrates 4. What diagnostic criteria for benzene poisoning do you know? 5. What contraindications to working with benzene do you know?	1. What is the term of incapacity for acute benzene intoxication? a) 5-15 days b) 20-25 days c) 40-45 days d) 70-75 days 2. What number of Heinz bodies is typical for intoxication with nitrocompounds of benzene? a) up to 5% b) 10-15% c) 30-40% d) 70-80% 3. Patient M., 44 years old, was diagnosed 3 years ago: chronic benzene intoxication. What form of anemia will be characteristic of this disease? a) Aplastic b) Iron deficiency c) Hemolytic d) Posthemorrhagic
Situational task	**Clinical problem**
1. Patient K., 35 years old, painter of metal products for 13 years. Recently, menstruation has become protracted, bleeding gums, headache, rapid fatigue, poor appetite, nausea have appeared. The sclera is subicteric, the gums are loose, periodontal phenomena. Petechial rash on the skin. Blood pressure 100/60 mm Hg. Art. A systolic murmur at the	1. The chemical plant worker was admitted to the inpatient hospital, where he was given a preliminary diagnosis: Chronic poisoning with benzene compounds. Chronic aplastic anemia. What additional examination is necessary to confirm the diagnosis? List the main areas of treatment for this patient? Offer treatment for anemia. Give work

top of the heart. In the tests: erythrocytes 3.5*1012/l, Hb 110 g/l, L 3.1*109/l, platelets 120.0*109/l, bleeding time 6 minutes, ESR 30 mm/h, formula: C -36, L-50, M-14; bilirubin 20.0 μmol/l, direct-0, indirect-20 μmol/l. Establish the most likely diagnosis? Who should confirm the occupational nature of the disease?	recommendations for further work with benzene and its derivatives.
Acquirer Evaluation Teacher	

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Protocol for testing knowledge by topic"Intoxication by toxic chemicals used in agricultural work"

OPC

Theoretical questions	**Test tasks**
1. How do organophosphorus poisons enter the body? 2. What is the mechanism of action of OPC on the human body? 3. What are the signs of acute OPC poisoning of the 1st century? 4. What are the signs of acute OPC poisoning of the II century? 5 What are the signs of acute OPC poisoning of the III century? 6. Diagnostic criteria for OPC poisoning: 7. What antidotes to OPC do you know? 8. What complications can develop after OPC poisoning?	1. What pathogenetic mechanism is implemented in OPC poisoning? a) Muscarinic b) Nicotine-like c) Atropine-like d) Cholinolytic 2. In case of OPC poisoning, the following effects develop, except: a) Mydriasis b) Tearing c) Salivation d) Muscle twitching 3. Which of the following organs are the most vulnerable in case of acute OPC poisoning? a) Lungs. b) Kidneys. c) Liver d) Joints 4. Patient S., 38 years old, farmer. Objectively: narrowing of the pupils, hyperhidrosis of the skin, miosis, bronchorrhoea, bradycardia, fibrillation of some muscles. The patient has: a) Chronic poisoning of OCC of the 2 stage. b) Acute OPC poisoning of the 3 stage. c) Acute poisoning of OCC of the 1st stage. d) Acute OPC poisoning of the 2 stage.
Situational task	**Clinical problem**

1. After spraying a tree in the garden, which he carried out without gloves, mask, glasses, the patient did not wash his hands and drank the usual dose of alcohol. After a few minutes, sweating, tachycardia, and hypersalivation appeared. He became restless, worried, walked around the house, went outside. After that, he became dizzy, lying in bed, thinking incoherently, hallucinating, experiencing fear. Blood pressure rose sharply, diarrhea, frequent urination, hyperkinesis appeared. What therapeutic tactics should be used for this patient?	1. A 54-year-old patient complains of headache, nausea, vomiting, abdominal pain, general weakness, difficulty breathing. On the day of the illness, I unpacked and loaded bags with chlorophos and polychlorpinene. General hyperhidrosis, hypersalivation, pupils are narrowed. Cholinesterase activity is 64.8%. The preliminary diagnosis is acute OPC (chlorophos) poisoning of the 1st century. Carry out treatment, provide work recommendations.
Acquirer Evaluation Teacher	

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Protocol for testing knowledge by topic"Occupational diseases, associated with the action of a biological factor: infectious (COVID-19); parasitic"

Theoretical questions	**Test tasks:**
1. Determine the jobs in which an occupational disease due to COVID-19 is possible A) B) 2. Specify how the MPC of infectious diseases is determined? 3. Specify the specifics of determining the connection between the disease and working conditions for COVID-19 4. List the documents that should be analyzed to establish the connection between the illness of medical workers for COVID-19 and industrial activity:	1. What parasitic diseases can be occupational? 1) Helminth infections 2) Protozoonosis 3) Entomoses 4) Acarioses 5) Everything is listed 2. What are the main criteria for diagnosing occupational infectious and parasitic diseases? 1) Group character 2) Seasonality 3) The presence of unfavorable regions for the disease 4) Predominant damage to open areas of the skin 5) All of the above
Situational task	**Clinical problem**
1. A general practitioner provided medical assistance to a patient with community-	1. A nurse working in the reception department of the "1 wave hospital"

acquired pneumonia. After 3 days, an answer was received regarding the coronavirus etiology of pneumonia. And 10 days later, the doctor fell ill with COVID-19. What type of occupational pathology is a doctor's disease? Who should conduct an epidemiological investigation and when?		constantly provided assistance to patients with colds, in particular, patients with COVID-19, during the work shift. During the morning thermometry, the nurse found a rise in temperature to 370, complaints of slight weakness. When an express test for COVID-19 is carried out, the answer is positive. What diagnosis should be established? How will the issue of work capacity and continued work as a nurse be resolved.
Acquirer	Evaluation	Teacher

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Content module 3. Diseases caused by physical factors and overstrain of individual organs and systems.

Protocol for testing knowledge by topic "Vibration disease".

Theoretical questions	**Test tasks**
1. What types of effects of vibration on the human body do you know?	1. During periodic medical examinations of persons exposed to the influence of local vibration, the following shall be carried out: a) Rheovasography b) Oscillography c) Dynamometry d) Cold test
2. What is the mechanism of action of vibration on the body?	2. Courses of general ultraviolet exposure for the purpose of prevention of vibration pathology are conducted: a) Once a year b) Twice a year c) Three times a year d) Four times a year
3. What clinical syndromes develop from the action of local vibration? a) b) c)	3. At what stage of vibration disease can a decrease in tendon reflexes occur? a) The first b) Second c) The third d) All of the above
4. Describe the clinical picture of vibration disease of the 3d stage from the action of local vibration:	4. Which complaint is not characteristic of vibration disease from the influence of general vibration of the 1st century? a) Periodic headaches, dizziness b) Increased fatigue, irritability
5. What complications of vibration sickness do you know?	
6. What physiological conditions are	

contraindications to work with vibration? Why?	c) Frostbite of the feet d) Swelling of hands, feet
Situational task 1. A 45-year-old patient has been working as a driller at a mine for the past 10 years. During a periodic medical examination, he complains of numbness and whiteness of his hands, during the examination, cyanosis of the extremities and trophic changes in the nails of the hands were revealed. During capillaroscopy - angiospasm, during palesthesiometry - a significant decrease in vibration and pain sensitivity according to the type of gloves. What is necessary to establish the occupational nature of the disease?	**Clinical problem** 1. A 39-year-old road worker who complained of pain in the left bone, restriction of movement, wrist deformity, after the examination was diagnosed: vibration disease from the action of local vibration of the 2nd degree, aseptic necrosis of the scaphoid bone of the wrist (Prizerdisease). Prescribe treatment, give further work recommendations.
Acquirer Evaluation	Teacher

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Protocol for testing knowledge by topic

"Altitude and caisson sickness"

Theoretical questions	Test tasks
1. What works accompanied by changes in atmospheric pressure do you know? 2. Describe the pathogenesis of the effect of increased pressure on the body of workers. 3. How many degrees of acute decompression sickness do you know? 4. Clinic for decompression sickness of medium severity? 5. Name the main clinical manifestations of chronic decompression sickness. 6. What complications of decompression sickness do you know?	1. What can be used in the treatment of acute decompression sickness? a) Inhalation of oxygen b) Respiratory analeptics c) Analgesics d) All of the above 2. When do clinical symptoms of mild acute decompression sickness usually appear? a) In the initial period of decompression b) During decompression c) The first minutes after the end of decompression d) Several hours after the end of decompression 3. Which syndrome will be absent in a severe form of acute decompression sickness? a) Muscle and joint damage syndromes b) Vestibular disorders c) Raynaud's syndrome d) Lung and heart damage syndromes. 4. What work recommendations should be given to the patient after treatment of acute decompression sickness with lower paraplegia and sphincter disorders? a) Capable of working in his profession b) Temporarily (for 1-2 months) transfer to

7. What is a contraindication to work in conditions of increased atmospheric pressure?	another job c) The patient needs rational employment and retraining d) Incapacitated
Situational task 1. The patient is 29 years old. Works as a diver. When climbing from a great depth, in connection with a broken compressor, he was forced to accelerate the climbing. After 2 hours, complaints of sudden weakness, heaviness and headaches began to appear. Vomiting, severe abdominal pain, frequent defecation joined. Objectively: the pupils are dilated, nystagmus, bradycardia, the abdomen is tense, palpation is painful. What urgent care does the patient need?	**Clinical problem** 1. Patient S., 25 years old, has been working as a diver for 5 months. After the dive, he went to the doctor with complaints of body itching. Objectively: pain in tender trunks of muscles and joints during palpation. The diagnosis was made: acute decompression sickness, mild form. Prescribe treatment, provide further work recommendations.
Acquirer Evaluation Teacher	

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Protocol for testing knowledge by topic

"Neurosensory deafness"

Theoretical questions	Test tasks
1. What pathogenetic mechanism occurs in occupational deafness? 2. What syndromes can occur with prolonged exposure to intense noise? 1) 2) 3) 4) 2. The use of which drugs is pathogenetically justified in occupational sensorineural deafness? 1) 2) 3) 4) 3. What work recommendations should be given to a patient with occupational deafness of the 2nd degree?	1. What spectrum of noise has the most adverse effect on the body? 1) low frequency 2) Medium frequency 3) High frequency 2. What research method is the main one for periodic medical examination of persons who work in conditions of intense noise? 1) Total audiometry 2) X-ray of the base of the skull 3) Determination of indicators of auditory adaptation 4) Study of hearing thresholds 3. Starting from what level of perception of whispered speech in workers of noisy professions can one suspect the presence of initial hearing disorders in them (1st degree)? 1) 5.5-6 m 2) 4-5 m 3) 1-3 m 4) less than 1 m
Situational task	**Clinical problem**

Patient C, 38 years old, has been working as an engine tester for 10 years (the noise at the workplace reaches 95-110 dB, mainly at high frequencies). In the last 3 years, he notes irritability, fatigue, occasional headaches. At the same time, he began to notice a decrease in hearing. No changes were detected in the otoscopic picture. During audiometry, an increase in hearing thresholds in the area of speech frequency perception was found in the range of 21-30 dB, at 4000 Hz - up to 65 (±20) and a decrease in hearing for the perception of whispered speech up to 2 m (+1 m). 1 Establish a preliminary diagnosis . 2. Make a plan for additional examination	1. Patient Sh., 35 years old, has been working as a shipbuilder for 15 years. After 5 years, at the medical examination, the threshold for the perception of whispered speech reached 4m. minor changes in the audiogram. The diagnosis was established: sensorineural deafness with mild hearing impairment (2 degree). Prescribe treatment, give further work recommendations
Acquirer Evaluation Teacher	

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Department of occupational pathology and functional diagnostics and phthisiopulmonology.

Protocol for testing knowledge by topic

"Occupational dyskinesias".

Theoretical questions	Test tasks
1. What occupational diseases are occupational dyskinesias? 2. What is the mechanism of development of occupational dyskinesias? 3. Give a clinical description of occupational dyskinesia? 4. What diagnostic criteria of occupational dyskinesia do you know? 5. What preventive measures should be used to prevent occupational dyskinesias?	1. What form of occupational dyskinesia is accompanied by "writing spasm"? a) paralytic; b) shaking room; c) atactic; d) convulsive. 2. What number of characters per shift should a typist working on a typewriter type in order for her work to be considered difficult, and dyskinesia - professional? a) 10,000 – 20,000 characters; b) 20,000 – 30,000 characters; c) 30,000 - 40,000 characters; d) 40,000 - 50,000 characters. 3. According to the existing legislation (Order No. 246 of the Ministry of Health of Ukraine), contraindications to work with local overstrain of the muscles of the hands are the diseases listed below, except: a) Varicose veins of the extremities; b) Inflammatory diseases of female genital organs and appendages; c) Obliterating diseases of arteries; d) Closed craniocerebral injury with violation of visceral functions

Situational task	Clinical problem
1. Patient K., 39 years old, working as a notary for 15 years, turned to a traumatologist with complaints of pain in the carpal joint, which begins and increases during writing, which interferes with the performance of professional duties. Objective indicators are unchanged, other functions of the hand are not impaired. The diagnosis was made: a neuralgic form of occupational dyskinesia. What work recommendations can be given to the patient?	1. Patient L., 27 years old, has been working as a music director in a speech therapy kindergarten for the past 2 years. During the preparation for the New Year's performance, she began to notice weakness in her fingers when playing the piano, the inability to hit the right key. The patient also notes increased irritability, sharp mood swings, which she associates with nervous tension before the performance. Establish a preliminary diagnosis, indicate which diseases need to be differentially diagnosed, prescribe treatment.
Acquirer Evaluation Teacher	

ODESSA NATIONAL MEDICAL UNIVERSITY

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Protocol for testing knowledge by topic

"Occupational radiculopathy"

Theoretical questions	Test tasks
1. What production factors lead to the development of occupational radiculopathy?	1. Which syndrome is not an occupational (overstrain) disease of the nervous system? a) Compression neuropathies b) Cervical radiculopathy c) Lumbar-sacral radiculopathy d) Encephalomyelopolyneuropathy
2. What variants of occupational radiculopathy do you know?	2. What damage to the peripheral nervous system has an occupational nature? a) De Quervain's disease b) Lerich syndrome c) Pickwick's syndrome d) Dupuytren's contracture
4. Describe the clinic of professional lumbosacral radiculopathy.	3. Work that requires: a) Carry cargo weighing up to 20 kg; b) Lift up to 250 kg of cargo per hour; c) Hold up to 10,000 kg of cargo and tools; d) Perform up to 100 inclines at an angle of up to 30% per day.
5. What complications of occupational diseases of the peripheral nervous system develop most often?	4. A patient with acute occupational lumbosacral radiculopathy needs: a) outpatient treatment; b) treatment at the medical center of frequent enterprises; c) treatment in a neurological hospital; d) sanatorium-resort treatment.
6. What studies are leading for the prognosis of work capacity in the development of occupational radiculopathy?	

Situational task 1. Patient S., 24 years old, has been working as a loader in a store for 1.5 years, turned to a neurologist with complaints of sharp back pain, which appeared acutely when unloading the car. After conducting research, a diagnosis was established: - acute lumbosacral radiculopathy, and treatment was prescribed. What will be the main factor in deciding the possibility of returning the patient to work as a loader after recovery?	**Clinical task** 1. Patient A., 57 years old, builder, has been engaged in the installation of plasterboard constructions for the past 6 years. The work is associated with the need to raise the floor and hold large-sized parts. The patient repeatedly felt pain in the lower back, which passed after the use of non-specific anti-inflammatory drugs. He did not consult doctors. 2 days ago, pain appeared, which became unbearable and the patient was taken to the hospital by ambulance. Establish a diagnosis, prescribe the necessary research and treatment.
Acquirer Evaluation Teacher	