

## THE ROLE OF INDUSTRIAL DUST IN THE DEVELOPMENT OF BRONCHOPULMONARY PATHOLOGY

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### ABSTRACT

*The article deals with the issues of the relevance of identifying diseases of the upper respiratory tract, the etiology of which can be harmful professional factors - industrial dust, clinics, timely diagnosis, treatment and prevention.*

**KEYWORDS:** *Industrial Dust, Pneumoconiosis, Respiratory Organs, Pathogenesis, Diagnostics.*

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### INTRODUCTION

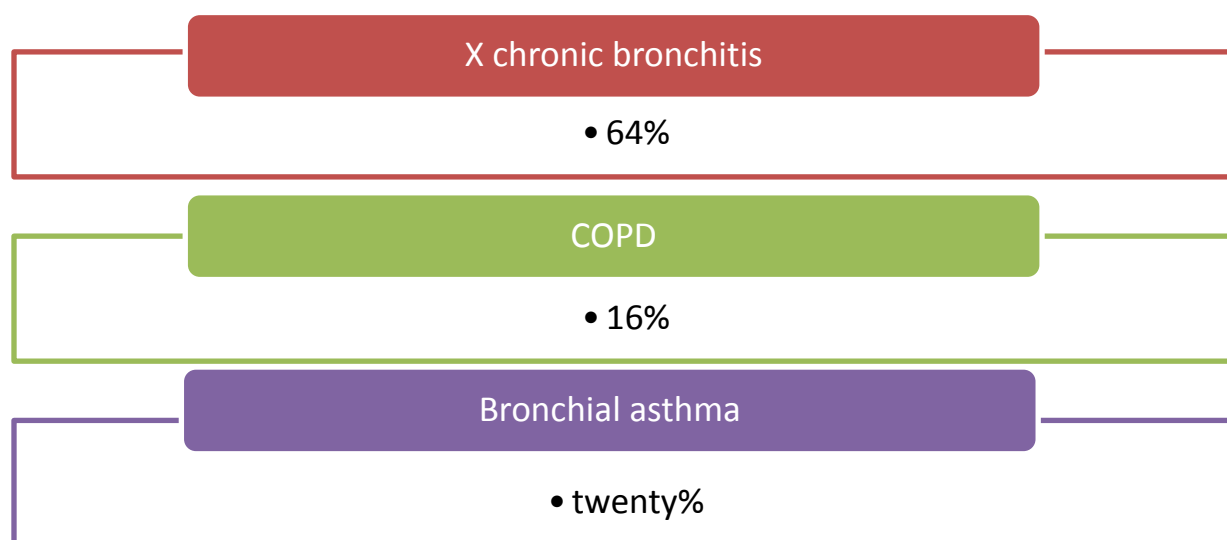
As part of the State Program for the Implementation of the Development Strategy of New Uzbekistan for 2022-2026, a radical reform of all spheres of life is being carried out. The main content of the reforms is its social orientation, turning to the daily needs and concerns of the 35 million population of the country, which annually increases by 600 thousand people. In this regard, the creation of new jobs and decent working conditions for the population is of particular importance. Studies show a steady decline in the country's total number of workers in hazardous working conditions, amounting to 149,600 people in 2021, which is 9% lower than in 2018. At the same time, the unsatisfactory state of working conditions and prolonged exposure to harmful production factors remain the main cause of the formation of occupational pathology among workers. According to the Institute of Sanitation, Hygiene and Occupational Diseases, 2054 cases of occupational diseases were recorded in the country last year, which, however, is 121 less than in 2020. According to the nosology of occupational diseases, silicosis, silicotuberculosis, pneumoconiosis, chronic bronchitis, cochlear neuritis, intoxication pesticides, vibration disease, chronic laryngitis, exogenous alveolitis and others. In the Samarkand region of the Republic of Uzbekistan, the issues of understanding the anthropogenic impact of tobacco dust are being successfully studied and a conceptual model has been developed to reduce the incidence of respiratory diseases among tobacco growers. Prolonged inhalation of dust particles, especially fine, the so-called respirable fraction (up to 5 microns in size), contributes to their settling and accumulation in the lungs. In this case, the development of a chronic disease known as **pneumoconiosis is possible**, given in 1866 r. FA Zenker (from the Greek pneumon - light, conia - dust). This term combines all the numerous types of dust fibrosis of the lungs. **Pneumoconioses** are characterized by a chronic disseminated inflammatory process in the lung tissue with the development of interstitial fibrosis. In any definition of the disease, different researchers emphasize the leading role of long-term exposure to high concentrations of inorganic

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(mineral) dust. The development of the disease also depends on the individual predisposition of the organism. Of great importance is the failure of the self-cleaning process of the lungs and the retention of dust in them. It should be noted that in the early stages of its development, pneumoconiosis can be accompanied by both normal pulmonary function and obstructive, restrictive or mixed disorders.

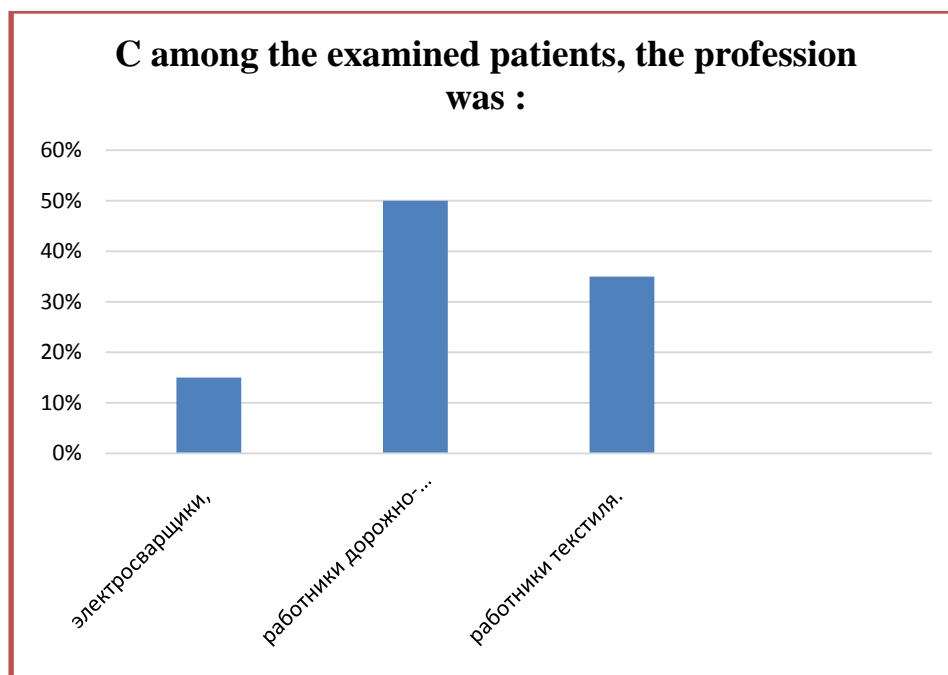
**Purpose of the Study:** To study the issues of the significance of a harmful occupational factor - as the probability of etiology, the importance of the collected full-fledged professional history, in patients who were hospitalized with diseases of the broncho-pulmonary system.

**Materials and Research Methods:** In the department of pulmonology GMO No. 1 of Samarkand, we examined 100 patients with respiratory diseases. All patients were examined according to the generally accepted diagnostic standard: complete blood count, urinalysis, X-ray examination, examination of the function of external respiration, sputum analysis. Also, professional history and professional route were collected from these patients. The age of patients is 35-62 years. Among the examined patients, the diagnosis of chronic bronchitis was 64%, patients with COPD - 16%, and bronchial asthma - in 20% of patients.



When collecting an anamnesis, a list of questions was compiled about the patient's profession, his length of service, and about harmful professional factors.

**Results:** In 20% of the examined patients, the profession was associated with dust particles of various origins. Among them were 15% - electric welders, 50% workers of the road transport system, 35% textile workers.



Our figures are much higher than those in the literature. These patients were observed not as patients with occupational diseases. Therefore, the treatment was carried out from the point of view of a clinical diagnosis, i.e. the probable etiological factor was not taken into account. And with prof. pathology, the complex of therapy may include both anti -etiological and pathogenetic measures. Recognition of various forms of the disease can be difficult due to the similarity of symptoms and x-ray picture with diffusely disseminated processes of another etiology.

## CONCLUSIONS

The clinician is faced with such a task when pneumoconiosis is suspected - this is the determination of the nature and localization of the pathological process (respiratory tract, lung parenchyma or pleura), the causes of the development of the disease, the possible involvement of working conditions. It is necessary to assess the physical condition of the patient, the ability to continue working in the profession, the presence of respiratory failure. When identifying the professional etiology of the disease, preliminary and periodic medical examinations are mandatory; if a disease is suspected - reasonable employment and dynamic monitoring of the patient. In treatment, good nutrition, rich in proteins and vitamins, is of great importance; physiotherapy exercises (including breathing exercises), smoking cessation. Nevertheless, each patient should be carefully examined by a phthisiatrician. Currently, there are no methods of radical treatment of patients with pneumoconiosis. Further development of the pathological process can be stopped only when contact with the etiological factor is terminated. The task of the attending physician is to reduce the progression of the disease and prevent its complications. At the same time, it is necessary to have information about the conditions for the occurrence and mechanisms of development of the form of pneumoconiosis that is diagnosed in the patient.

Thus, when identifying the professional etiology of respiratory diseases, with basic therapy, it is advisable to employ and dynamically monitor the patient.

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**Attachment 1**

**CONFERENCE PARTICIPANT REGISTRATION CARD**

Surname, name , patronymic of the participant	Nosirova Dildora Erkinovna
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University, faculty, course / position	Samarkand State Medical Institute, Faculty of Medicine, 2-year master's degree in Therapy
The name of the institution, department that performed the work	Samarkand State Medical Institute,
Job title	The value of a harmful professional factor in the diagnosis of bronchopulmonary pathology

Surname, name, patronymic of the supervisor, position, academic degree, academic title	Mamurova Nigora Normuratovna - Assistant of the Department of Internal Medicine.
Form of participation in the conference (publication and oral presentation, publication and poster presentation)	correspondence
Do you need to be met ?	No
Need for a hotel	No