

A SYSTEMATIC APPROACH TO MANAGING THE HEALTH AND RISK FACTORS OF THEIR WORKERS

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ABSTRACT

In the article the objective is to study in depth the health, risk factors of workers of the Almalyk mining and Metallurgical Combine and to develop systematic comprehensive measures to improve them, to prevent risk factors.

Materials and research methods include the metallurgical industry of Uzbekistan is strengthening its position from year to year. Because of the presence of a powerful mineral and raw material base and Mining Enterprises, our country occupies one of the leading positions in the production of black and non-ferrous metals in the Central Asian region. The Metallurgical Combine of Uzbekistan is one of the most advanced in the metallurgical industry of our country. In particular, about 40 thousand miners-metallurgists with representatives of more than 40 nationalities and nationalities work in this area at the almalyk mining and Metallurgical Combine (MMC), the flag bearer of non-ferrous metallurgy of Uzbekistan. Therefore, the study of the health of workers in the metallurgical industry is an urgent problem. To study the working conditions, lifestyle and state of health of workers working in the Almalyk KMK of the Republic of Uzbekistan, we used the multi-stage selection usili (cluster, serial selection). The study included materials on morbidity for 2017-2020.

Keywords: general morbidity, morbidity, nosological forms, risk factors, disability, workers of the metallurgical industry.

INTRODUCTION

Today, the development of production in developed and developing countries on a global scale, increasing export potential, increasing the competitiveness and efficiency of enterprises as a result of modernization, the issue of protecting and strengthening the health of the population working in these enterprises is one of the most important problems that medicine should solve. However, despite this, the number of first - time detection of chronic occupational diseases in Uzbekistan is significantly lower than in other countries: compared to the United States - 188, compared to Azerbaijan - 50, compared to Japan - 34, compared to Russia - 14, and compared to Belarus-3.5 times less [4, 8].

The protection and promotion of the health of the working-age population as the most important productive force in society, which determines the economic development and national security of the country, is one of the most important and priority problems of the state [1, 2]. In modern economic conditions, the provision of medical care to employees of industrial enterprises has become more complicated [3, 5]. Of particular importance is the problem of assessing occupational morbidity and occupational risk due to the high harmfulness of working conditions of workers in the mining industry. However, recent studies show that the registered levels of Occupational morbidity are less reliable, making it difficult to use them to assess occupational risks [9, 11].

The mining and metallurgical industry of Uzbekistan is strengthening its position from year to year. Therefore, due to the presence of a powerful mineral and raw material base and Mining Enterprises, our country occupies one of the leading positions in the production of black and non-ferrous metals in the Central Asian Region [6, 7]. Therefore, increasing the labor efficiency of workers at Enterprises is inextricably linked with the working conditions in it and, of course, with the state of health of workers. This puts the tasks of further improving the medical service provided to workers of industrial enterprises. In Uzbekistan, approaches to the Prevention of occupational diseases have some drawbacks, that is, until now, a prognostic table has not been developed that evaluates the risk factors affecting the health of workers; scientifically based comprehensive measures have not been developed to optimize working conditions, improve the health of workers [8, 10]. The above indicates the extreme relevance and necessity of this topic today.

As objects of research, the Almalyk mining and Metallurgical Combine (OTMK) was chosen. Working conditions of workers working in Almalyk KMK of the Republic of Uzbekistan; lifestyle; classes of working conditions and risk factors; timing of working hours; for

the study of patients, nutrition and professional risk indicators of workers, we used the multi-stage selection usili (typological, cluster selection). The study included materials on morbidity for 2017-2020. In the process of collection, processing and analysis of research materials, modern: epidemiological, socio-hygienic, sociological, chronometer, sanitary and statistical, expert assessment methods were used. Натига ва муҳокама

In the period 2017-2020, the results of the health of OTMK workers were analyzed. Tashkent region was chosen as a control group of the working population. The growth of the OTMK enterprise is 1%. In the analysis of the incidence, it was noted that the incidence of workers is 26.5%, while in the control group this figure is 6.2. In the composition of the causes of death of those who work at the enterprise, almost half (48%) were injured and poisoning, and in the regions taken for comparison, their share was 33 and 37%. The share of oncological diseases among the working-age population of the Tashkent region is 12%, among workers-17%, which is 9% higher.

The main level of disability of OTMK workers amounted to a higher indicator than the working-age population. In the composition of its causes, the degree of oncological diseases was noted: 21.3% and 15.7% in the control group (Table 1).

Table 1

Workers health indicators

Object of research	2017 г.	2018 г.	2019 г.
Primary disability rate (per 10,000 workers)			
OTMK	55,7	46,6	45,19
Control group	50,3	48,9	41,3
Occupational diseases (per 10,000 workers)			
OTMK	20,5	17,6	7,98
Control group	3,94	5,2	2,92

The distribution of patients with occupational diseases is presented in Table 2. Among these patients, the largest group was 51-60 years old (Table 2).

Table 2

Distribution of occupational diseases of OTMK by age

Age	31-40	41-50	51-60	Older than 60
Occupational diseases %	3,4%,	28,9%,	50,5%,	17,2%.

The working period is of great importance in the development of occupational diseases among workers. The results

of the study showed that. Work experience - up to 10 years - 10.0%, up to 20 years - 30.4%, more than 20 years - 59.6%.

Table 3 shows the results of the study of the incidence of temporary incapacity for work (VML) at Almalyk Mountain Metallurgical Combine.

The degree and structure of the disease, as well as some leading nosological forms, are separately studied and analyzed by average indicators during production and research periods, which makes it possible to increase the representativeness of the research.

The analysis of the structure of the incidence of temporary disability shows that 74.1% of all work and more than 66.3% of all work capacity fall into 5 disease classes: respiratory organs, nervous system and sensory organs, musculoskeletal system, digestion organs, circulatory system.

As work experience increases, the morbidity rate of employees working under the influence of negative production factors increases.

Frequent and long-term sick in our research was 12.3% of all workers, but they were recorded in 37.7% of all cases and disability in 56.7% of all days. It is most important to determine the specific weight of frequent and long-term patients for each class of disease, these indicators are such injuries and poisoning, tumors (100% of patients), diseases of the circulatory system (63.9% of patients), blood diseases (55.5 %), infectious and parasitic diseases (46.1% of patients), diseases of the musculoskeletal system (45% of patients). Thus, long and frequent diseases are mainly caused by diseases of the respiratory system, circulatory system, trauma and poisoning, diseases of the musculoskeletal system and connective tissue, nervous system and sensory organs.

Conclusions

So, Almalyk made the following conclusions when studying the health and illness of workers in the mining and metallurgical industry:

1. The morbidity rate of workers working at OTMK is 135.8 cases and 100 days per 1871.1 working days, which makes it possible to estimate that the disease is high. Diseases are based on 5 classes of diseases: diseases of the respiratory system, nervous system, musculoskeletal system, digestive system and circulatory system.

2. Incidence rates were found to be significantly age dependent. The highest rate of disease is observed between the ages of 25 and 50 years. The age characteristics of the disease are related to professional skills, qualifications and level and the age of the workers.

3. Production technology and equipment, including automation and mechanization of the labor process,

rationalization of workplaces, creation of favorable microclimatic conditions, reduction of tension and monotony of labor are necessary in order to create optimal working conditions for OTMK employees.

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