

INTEGRAL ASSESSMENT OF RISK FACTORS AFFECTING THE HEALTH OF EMPLOYEES OF A COPPER PRODUCTION MINING

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ABSTRACT

Objective: to study the state of health, lifestyle and working conditions of employees of copper mining enterprises, to identify risk factors leading to the development of general and occupational diseases, and to develop prognostic tables for their assessment. **Materials and Methods:** 330 workers of the Copper Processing Plant and the Copper Smelter working under direct exposure conditions (main group) and 350 workers working under conditions without direct exposure (control group) (questionnaire method). **Results:** The obtained 12 productions, socio-hygienic and biomedical factors ranged from 19.77 to 49.45 in the range of influence on morbidity rates associated with temporary disability. Thus, the larger the normative integration (prognostic) indicator, the higher the influence of complex factors, and, conversely, the lower the prognostic indicator, the lower the influence of factors.

Key words: Copper smelter, health status, morbidity, MTD, prognostic table.

INTRODUCTION

The Mining Metallurgical Combine is the backbone of most industries, so in most countries of the world the mining metallurgical industry is of great economic and social importance. According to experts from the International Organization for labor protection, the mining metallurgical industry is considered as a kind of industry, in which workers in this area, together with heavy cocktails, are affected by the conditions of non-productive cocktails, harmful and dangerous production factors [4,6]

The main reason for the violation of the state of health of representatives of different professions and the development of occupational diseases is unfavorable working conditions [3].

The working conditions of the workers of the mining metallurgical industry are characterized by a number of harmful and dangerous production factors, mainly high levels of dust, aerosols with a fibrogenic effect, strong noise, vibration and unfavorable microclimate, the severity of Labor, the level of which significantly exceeds hygienic Meurs [1,2,8,9].

The constant improvement of working conditions and the improvement of personal protective equipment partially impede the influence of harmful production factors of almost all of its workers [6,8]. It should also be noted that the health status of workers is affected not only by harmful and dangerous production factors, but also by their lifestyle and conditions, harmful habits (smoking, alcohol consumption), natural biological aging processes of a person, etc. [10].

One of the urgent tasks is the development of measures aimed at protecting 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. In this regard "...in the field of preserving the health of citizens, important tasks are set aimed at developing mechanisms of interdepartmental effective cooperation and contacts, including solving problems that negatively affect the social and economic determinants of Health, developing a healthy and safe environment, forming a healthy lifestyle. Reforms in the health care system, carried out in accordance with the concept of Health Development, consist in the development of measures aimed at preventing the morbidity of workers of an industrial enterprise and improving the health of the working-age population.

Currently, one of the urgent issues is the identification of indicators of general and professional morbidity spread among workers based on the conditions of labor activity, the influence of lifestyle and conditions on them and risk factors through

them, the development of scientifically based preventive measures to prevent them.. This, in turn, will help to determine the prospect of the state of health of workers and develop scientifically based measures to further improve it.

Purpose: to study the state of Health, Lifestyle and conditions of workers of copper production enterprises, to identify risk factors that provoke the development of general and occupational diseases, and to develop prognostic tables that assess them.

MATERIALS AND METHODS: among the 330 workers (Event Group) who work in conditions where there is a direct risk factor effect at the copper enrichment factory (CEF) and the copper smelter (CS) and among the workers who work in conditions where there is no risk factor effect of 350 (control group) (questionnaire-survey) were conducted.

RESULTS OBTAINED

The provision of qualified medical care to the population, the development of measures aimed at improving the quality of life of the population and their application in practice is one of the tasks set by each medical worker

The results of the study showed that a number of disadvantages were allowed in the control, treatment of patients: the inability to conduct examinations completely, correctly assess the degree of rejection of the disease, and, as a result, the inadequacy of treatment, the timely implementation of inpatient treatment, etc. are among them.

The use of a specially developed mathematical model in the analysis of data on risk factors leading to the disease gives a positive effect (Table 1). There are many risk factors that affect the state of health of workers, the level and structure of general and occupational diseases. However, assessing the effect of each of them on the body and forecasting it will take a little more time from the health worker. The main purpose of using the prognostic table is to distinguish the most basic factors that cause illness in workers. There are several ways to make a prognostic table. We L.A. Ponomaryova and B Mamatqulov (2013y)s have found it necessary to use a simple and reliable method developed by.

Of the risk groups, 12 risk factors with the highest weight were distinguished. An in - depth analysis of the results of the studies, analytical research methods of Clinical Epidemiology: determination of risk factors, the ratio of chances and the prevalence of diseases, the leading risk factors of their disease were identified, and a table for determining and evaluating their prospects was developed (Table 1).

Table 1

A prognostic table that comprehensively evaluates the level of risk factors affecting the state of health of workers.

№	Factors related to lifestyle and working conditions	Factor gradation	Prognostic indicator (X)	Relative risk indicator (R)
Biological factors				
1	Age composition:	20-29	2	4
		30-39	8	
		40-49	3,6	
		50-59	5,6	
		60<	2	
2	The presence of chronic diseases	available	1,74	2,9
		not available	5,1	
Health indicators and production factors that affect the level of morbidity				
3	Production process:	by hand	3,8	2,38
		mechanized	1,6	
		semi-mechanized	3,1	
4	Production strain: type	physical exertion	6,6	3,3
		mental	2,31	
		no tension	1,98	
		mixed	2,31	
		spiritual-emotional	3,63	
Factors related to living conditions, nutrition and rest				
5	Living conditions:	bad	1,96	2,45
		satisfying	2,28	
		good	4,8	

		very good	4,46	
6	The ruxian case in the family:	satisfying	1,73	1,72
		good	1,44	
		bad(war scandal)	2,5	
7	do you deal with physical education:	YES	1,64	3,1
		no	5,1	
8	Smoking cigarettes:	YES	1,6	1,37
		no	1,16	
9	Smoking internship:	5 years	1,33	1,77
		6-9 years	0,92	
		10-14 years	1,13	
		15-19 years	1,1	
		KTP from 20 years	0,75	
10	do you drink alcohol	yes	1,09	1,4
		no	1,54	
Factors related to medical activity				
11	How do you assess your health:	launch	2,44	3,3
		bazan winkir kasalliklar bn agrab turaman	6,4	
		often get sick	6,9	
		menda surunkali kasalliklar bor In shifokorga kamdan-few Links	8	
		Frequently Asked questions	2,77	
12	What do you do if you feel sick:	right away,	2,12	2,29
		the cipher korga boraman according to the state	1,64	
		of kasallik belgilar is exactly a mighty link	2,93	
		in this article we will tell you how to do it.	3,78	
	the smallest Risk Value(X)	$\sum X_n$	19,77	
	The Greatest Risk Value(X)	$\sum X_n$	49,45	

Upon collection and medical examination of the client's medical history data, the identified factors are determined in this table. After that, the sum of the values corresponding to all factors is obtained (Table 2).

Table 2

Risk groups and sizes

<i>Degree of danger</i>	<i>Hazard size</i>	Risk group
The smallest degree of risk	19,77-28,24	(perspective-forecast)
Average level of risk	28,25-37,4	good perspective Group
Highest level of risk	37,3-49,45	group that requires attention
Risk limit	19,77-49,45	

In the study, we divided the risk limits into 3 interval groups: the smallest level of risk (19.77-28.24), the average level of risk (28.25-37.4), the highest level of risk (37.3-49.45).

In accordance with the above, we divided the perspective (forecast) into 3 groups: a good perspective Group, A group that requires attention, a bad perspective Group.

With a good promising group, where there is a minimum probability limit of risk, measures for the primary prevention of the disease are carried out. In doing so, the focus is on preventing the onset of the disease. First of all, it will be necessary to eliminate existing risk factors or reduce their impact.

In groups that require attention, where there is a medium probability limit of risk, a narrow specialist is sent for the purpose of conducting special instrumental examinations, an individual wellness plan is developed, a healthy dispensary group is organized, actively monitored and, if necessary, actively treated, recommendations for the day and work schedule are developed.

And in poorly promising groups, where there is a maximum probability limit of risk, measures are carried out to hospitalize the patient as needed, to carry out secondary preventive measures: eliminate allergens, limit contact with them to the possible level; treatment and Prevention; improve the medical knowledge of the patient, his workers, etc.z.

CONCLUSION

1. Comprehensive socio-hygienic studies on the influence of VMYAH on the factors of production, the lifestyle and conditions of workers of the toggan industry of

the Republic of Uzbekistan have made it possible to identify risk factors reflecting the socio-hygienic picture of uzov-term and often ill patients.

2. These are those who live in unsatisfactory living conditions of workers and in conditions where the mental state in the family is not calm, do not follow a diet, rest routine, have harmful habits, elementary or Senior work experience, harmful production factors, as well as work activities that are accompanied by mental and physical exertion, and the external environment is unsatisfactory.

3. The widespread use of this promising table, which allows a comprehensive assessment of the risk group among workers, allows during periodic medical preventive examinations to identify tsex therapist, SEO and JSX Occupational Hygiene Doctor, medical workers operating in BTSYo institutions, temporarily incapacitated persons, those who are prone to long-term and frequent diseases in the initial period, conduct their differential dispensary monitoring, draw up individual.

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