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HYGIENIC ASSESSMENT OF WORKING CONDITIONS OF MEDICAL WORKERS IN THE RURAL OUT-PATIENT AND POLYCLINIC ORGANIZATIONS

Abstract: *Medical workers is a category of representatives of workers mainly concerned with brainwork and regarded as more complex and responsible activity defined by significant intellectual capacity that requires in some cases ill physical efforts, endurance, performance of work in extreme conditions.*

Keywords: *microclimate, medical workers, rural out-patient and polyclinic organizations.*

In recent years, equipment of health care establishments by x-ray, radiological, electronic, electromedical and laser equipment, ultrasonic and superfrequency installations, medical barochamber is considerably increased.

Reanimation and intensive therapy, radioactive substances, highly effective antibiotics, cortikosteroids and other drugs are implemented into medical practice widely. On the one hand, it promotes increase of level of functioning of health care establishments and quality of medical care. On other side, it puts health care workers in new, not enough or not studied working conditions. Thus the optimum microclimate of working spaces should provide normal level of heat exchange of working bodies with environment, comfortable heat feelings, and increase thermal stability of an organism [1, 2, 3].

Researches on studying occupational health of medical workers are constantly expanding, but, unfortunately, do not give desirable effect.

Working environment of medical workers working in private medical-preventive centers, in some cases essentially differ from their working environment in state medical institutions. First of all, the majority of state TPI settle down in the buildings constructed by standard projects with account of all building and sanitary norms and rules. Private TPI¹ settle down frequently in the adapted premises and if these premises are used under lease then administration, as a rule, have no motivation to a foresight in such buildings of the repair, essential reorganizations etc.

Studying of labor health conditions of medical workers has shown that health of this category of individuals potentially can be threatened by considerably more harmful and dangerous production factors than it takes place with representatives of other professions[4, 5].

We carried out the study of microclimate index, noise level and EMR² of industrial frequency in premises of the rural out-patient and polyclinic organization in Karasai district in warm season of the year. The category of works of all examined people was defined at a level 2A.

Microclimate indexes of 13 workplaces of doctors of various profiles, laboratorians and nurses were surveyed. As a result of research it was found that levels of temperature, relative humidity and outputs from the limits of recommended specifications while speed of the of air movement was much lower than the recommended level (0.01-0.18 m/s instead of 0.3 m/s). The noise level on a workplace of the laboratorian in biochemical laboratories exceeded maximum permissible level by 13dB. The level of electromagnetic radiations of industrial frequency on a workplace of the nurse in physiotherapeutic department exceeded permissible level.

Also the microclimate parameters (temperature, humidity and speed of air movement) were studied.

Methods. Measurement of physical parameters was carried out with use of the standard techniques by device TKA-PKM-60in the warm period of year, in the afternoon. 80 medical workers work in the area of 420 sq.m, 32 sq.m and 18 sq.m.

The received results of measurements of the basic indicators of an industrial microclimate of medical institution are presented in table 1.

Table 1 - the Basic indicators of an industrial microclimate

| № Measurement point | Measurement venue | Category of works on weight | Air temperature, °C | | Relative humidity of air, % | | Speed of movement of air, m/s | |
|------------------------|--|-----------------------------|---------------------|------------------|-----------------------------|------------------|-------------------------------|------------------|
| | | | The measured | Optimum on norms | The measured | Optimum on norms | The measured | Optimum on norms |
| Radiological office | | | | | | | | |
| 1. | On a workplace of the laboratorian | 2A | 23 | 18-27 | 45 | 40-60 | 0,18 | 0,3 |
| 2. | On a workplace of the radiologist | 2A | 23 | 18-27 | 45 | 40-60 | 0,17 | 0,3 |
| Biochemical laboratory | | | | | | | | |
| 3. | On a workplace of the laboratory doctor | 2A | 24 | 18-27 | 46 | 40-60 | 0,05 | 0,3 |
| 4. | On a workplace of the laboratory doctor | 2A | 24 | 18-27 | 46 | 40-60 | 0,05 | 0,3 |
| Polyclinic | | | | | | | | |
| 5. | On a workplace of the surgeon | 2A | 24 | 18-27 | 43 | 40-60 | 0,01 | 0,3 |
| 6. | On a workplace of the gynecologist | 2A | 24 | 18-27 | 46 | 40-60 | 0,01 | 0,3 |
| 7. | On a workplace of the traumatologist | 2A | 24 | 18-27 | 48 | 40-60 | 0,01 | 0,3 |
| 8. | On a workplace of the oculist | 2A | 24 | 18-27 | 48 | 40-60 | 0,01 | 0,3 |
| 9. | On a workplace of the ENT- DOCTOR | 2A | 24 | 18-27 | 48 | 40-60 | 0,01 | 0,3 |
| 10. | The intern (tomography) | 2A | 23 | 18-27 | 42 | 40-60 | 0,04 | 0,3 |
| 11. | Physiotherapeutic branch at the panel of the nurse | 2A | 22 | 18-27 | 45 | 40-60 | 0,03 | 0,3 |
| 12. | On a workplace of the nurse device UVCH-80. | 2A | 22 | 18-27 | 49 | 40-60 | 0,05 | 0,3 |
| 13. | On a workplace of the nurse device UVCH-66 | 2A | 23 | 18-27 | 50 | 40-60 | 0,03 | 0,3 |

During the warm period at work places of workers with 2A category of workload fluctuation of air temperature made from 22 oC to 24 oC; relative humidity – from 42 % to 48 %; speed of air velocity – from 0,01 m/s to 0,18 m/s.

In general, physical parameters of air in checked medical center were in line with the standards presented in sanitary-and-epidemiologic requirements. The exception was air velocity which was in most cases less than recommended 6-30 times.

Thus, levels of physically harmful and dangerous production factors on some workplaces of medical workers of private medical institution exceed maximum permissible levels.

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А.Б. НҰРШАБЕКОВА, Ш.К. МЫРЗАХМЕТОВА**
АУЫЛДЫҚ АЙМАҚТАҒЫ АМБУЛАТОРЛЫҚ ЕМХАНА ҰЙЫМДАРЫНДАҒЫ МЕДИЦИНА ҚЫЗМЕТКЕРЛЕРДІҢ
ЕҢБЕК ЖАҒДАЙЫН ГИГИЕНАЛЫҚ БАҒАЛАУ

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Түйінді сөздер: ықшам климат, медицина қызметкерлері, ауылдық аймақтағы амбулаторлық емхана ұйымдары.

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А.Б. НҰРШАБЕКОВА, Ш.К. МЫРЗАХМЕТОВА**
ГИГИЕНИЧЕСКАЯ ОЦЕНКА УСЛОВИЙ ТРУДА МЕДИЦИНСКИХ РАБОТНИКОВ В СЕЛЬСКИХ
АМБУЛАТОРНО-ПОЛИКЛИНИЧЕСКИХ ОРГАНИЗАЦИЯХ

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Ключевые слова: микроклимат, медицинские рабочие, сельские амбулаторно-поликлинические организации.

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