

UDC 613.62

**ANALYSIS OF PROFESSIONAL DISEASES ON LLC "KAZAKHMYS
SMELTING"**

M.B. Otarbaeva

Republican State Governmental Enterprise "National center of Industrial hygiene and Occupational diseases" Republic of Kazakhstan Health Ministry, Karaganda

The low screening rates of professional diseases are on the Balhash copper plant, related to that workers go away to the general network with somatic diseases that is not diagnosed as professional. For the exposure of professional diseases quality realization of preliminary and periodic physical examinations of persons, working in the harmful, dangerous and unfavorable terms of labour with participation doctors possessing knowledge in area of occupational, is needed. From data of periodic health examination persons working in harmful terms, groups "increased risk" must be created for the prophylaxis of both general and professional diseases and that must be exposed to the health centre system and stationary medical rehabilitation.

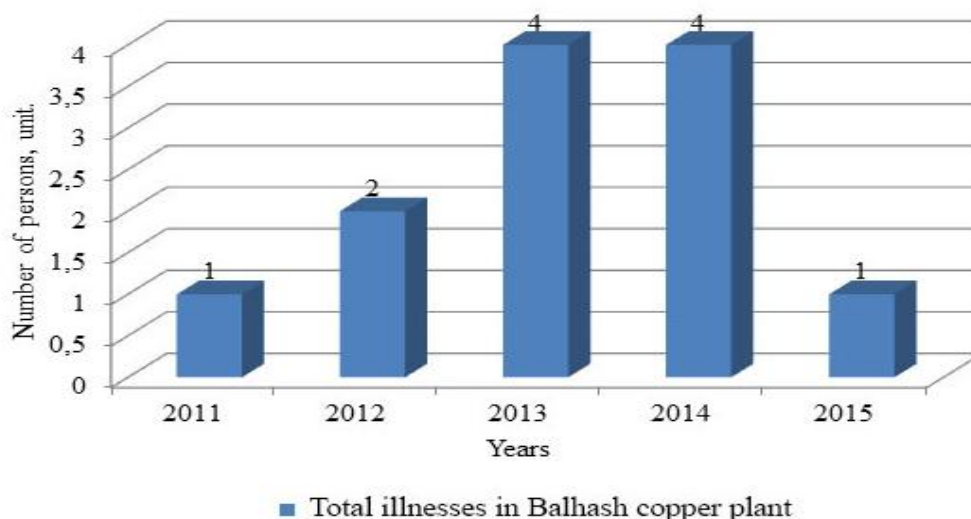
Key words: professional diseases, associated pathology, preliminary and periodic physical examinations, health centre system, occupational physician

Relevance. The intensive introduction of new technical processes, powerful and super-power machines, aggregates and equipment comes true on the industrial enterprises of Kazakhstan in the last few years, that in turn pulls out a vital necessity before hygienical science new tasks on development of the effective methods sent to making healthy and establishment of safe terms of labour. Basic productive factors on a mining production, rendering unfavorable influence on the health of working, it is been dust of difficult chemical composition, containing metals of different toxicness and orientation of action, harmful gases, productive noise, vibration and unfavorable microclimate. In such situation influence of unfavorable factors of productive environment and labour process results in the decline of health of workers level, depression of the labour productivity and considerable economic losses. Results of deep medical examinations more than 2000 workers 5 mining combines showed, that among the persons of basic professions of ore and spill mines a professional bronchitis was diagnosed in 13.2% cases, pneumoconiosis - in 0.95% and suspicion on pneumoconiosis - in 3.3% cases on 100 examined. The crisis phenomena in a number of countries the CIS (Russia, Kazakhstan, Ukraine of and other) substantially limited economic feasibilities of the state on financing of developments and introduction in mining industry of the complex programs of prophylaxis of professional morbidity and productive traumatism [1-4]. Most anxious is that the increase of death rate in

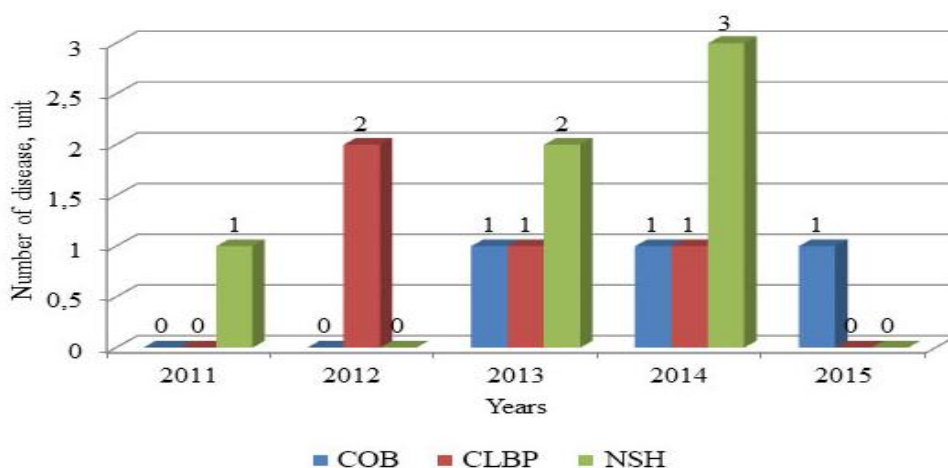
Kazakhstan is mainly due to the men of capable of working age, on that heavy physical activities, social stress, influence in a greater degree. Obviously, that to guidance of country, all Kazakhstan society, it is necessary immediately to accept the most firm measures for the correction of situation. Thus, foregoing literary data testify that a technical improvement and intensification of productive processes in the different types of industry quite often pass ahead a level and rates of development and introduction of facilities of improvement of terms of labour and promote the risk of origin of both general and professional diseases [5-8].

Materials and research methods. The 932 outpatient medical records were analysed for every profession after 2011-2015yy., with the purpose of exposure of persons that a professional disease was proposed.

Research results. The analysis of outpatient medical records showed that the most exposure of professional diseases was observed in the period of 2013-2014yy., picture 1. The most of the educed professional diseases is on a neurosensory hearing loss (NSH), on 2 places chronic lower back pain (CLBP), chronic obstructive bronchitis (COB), on the last place, picture 2. The low level of professional diseases is marked on the Balhash copper plant, because probably, that workers with the displays of professional diseases are observed in a general network with somatic diseases that is not considered as professional.

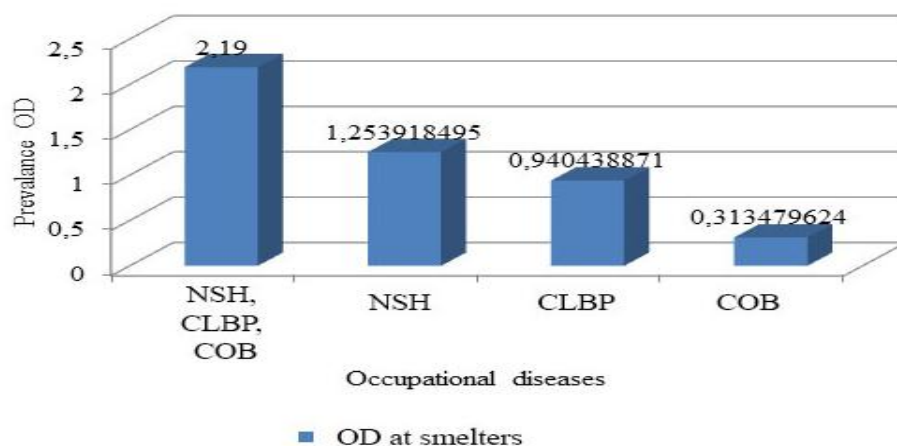


Picture 1 – All cases with professional diseases

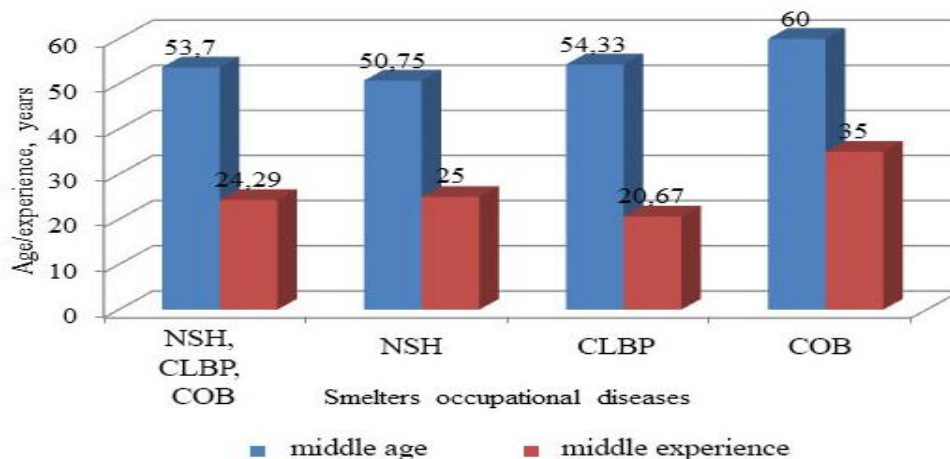


Picture 2 – All cases of professional diseases on years and nosologies

For smelters at an inspection associated pathology is marked in Science Center, i.e. as 3 professional diseases are shown on a picture 3 -neurosensory hearing loss, chronic lower back pain, chronic obstructive bronchitis (2.19), on 2 places combination of such diseases as NSH (1.25), on 3 places of CLBP (0.94), on the last place of COB (0.31) on a 100 working, picture 3. At age 53, experience associated professional pathology (3 professional diseases) is 24 marked, picture 4. In age 50, 54, the presence of symptoms of professional diseases is 60 marked, as a rule it is workers with a few chronic somatic diseases that were not considered as professional.

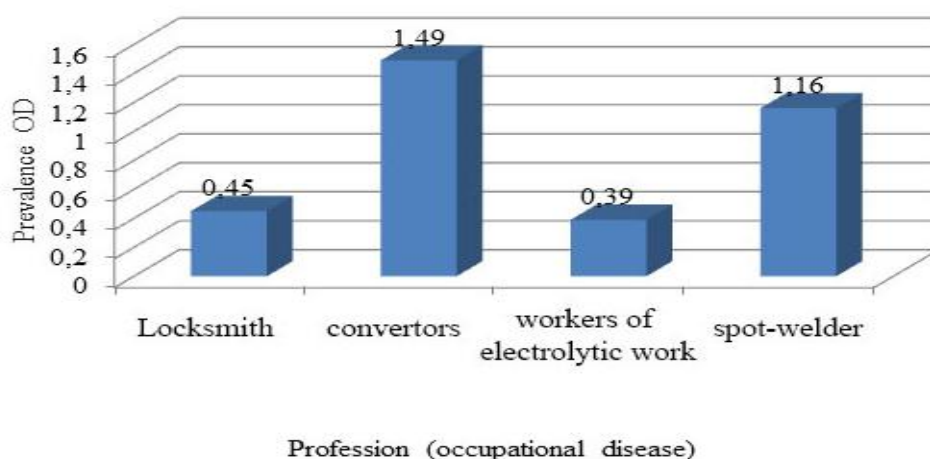


Picture 3 – All cases of professional diseases for smelters on a 100 working



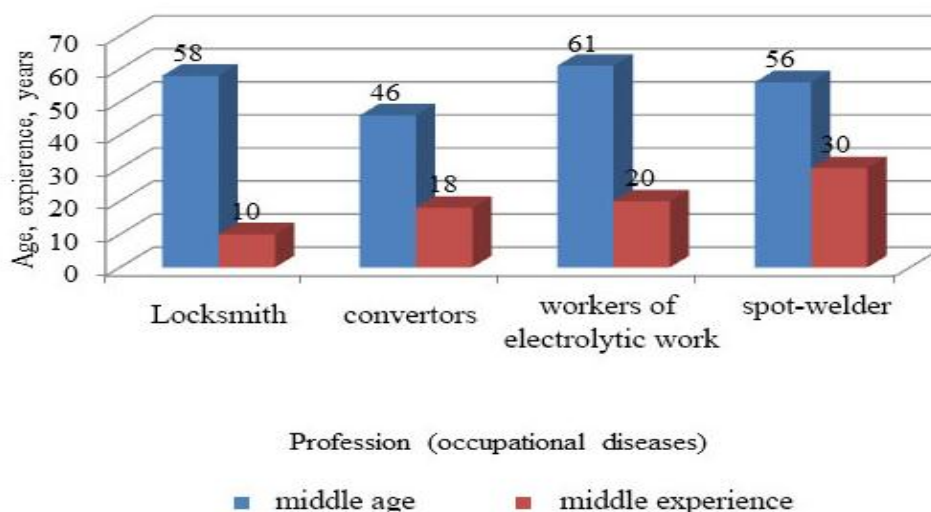
Picture 4 – Professional diseases for smelters by experience and age

In such professions as a locksmith-repairer there are diseases on a 100 working, as NSH (0.45), at convertors - CLBP (1.49), workers of electrolytic work - COB (0.39), spot-welder - COB (1.16), picture 5.



Picture 5 – Prevalence of professional diseases on a 100 working for locksmiths-repairers, convertors, workers of electrolytic work, spot-welders

The exposure of professional disease (NSH) of workers (age 58) at experience 10 years observed for locksmiths - repairers, CLBP is observed at convertors in age 46, experience 18 years, at workers of electrolytic work in age 61, experience 20 years there are COB, for spot-welder in age 56, experience 30 years there is COB, picture 6.



Picture 6 – Professional diseases of locksmiths-repairers, converters, workers of electrolytic work, spot-welders by experience and age

Thus, an analysis showed low exposed of professional diseases on the Balhash copper plant, related to that workers go away to the general network with somatic diseases that is not considered as professional. Presence of diseases of professional genesis marked for workers in age 50, 54, 60 that is considered as associated professional pathology and are considered start cases.

The analysis of professional diseases showed that the most exposure of professional diseases was observed in 2013-2014 yy., where professional diseases showed combination of such diseases as a neurosensory hearing loss, chronic sciatica, chronic obstructive bronchitis.

In connection with foregoing for the exposure of professional diseases quality realization of preliminary and periodic physical examinations of persons working in the harmful, dangerous and unfavorable terms of labour is needed. In an order № 128 from February, 24, 2015 it is said "About claim of Rules of realization of obligatory physical examinations", that in the complement of medical commission medical workers enter: internist, surgeon, neurologist, otolaryngologist, ophthalmologist, dermatovenereology department, gynaecologist, roentgenologist, doctor on functional diagnostics, laboratory doctor-assistant, passing within the framework of the speciality preparation on professional pathology. A presiding commissioner is occupational pathologist doctor having the professional retraining for occupational pathology and certificate of specialist (occupational pathologist) and being a responsible person for quality of realization of obligatory periodic medical examinations. Doctors participating in preliminary and periodic medical examinations must constantly systematize and deepen the knowledge, in particular her legislative and normatively-legal base, questions of

examination of professional integrity and many other questions, touching the different aspects of occupational pathology.

Persons working in harmful terms must come to light during realization of periodic examinations, i.e. a group "increased risk" due for the health centre system and stationary medical rehabilitation, for the prophylaxis of both general and professional diseases.

LIST OF REFERENCES

1. Nurymbetov B.B. Influence of economy in providing of safe terms of labour on a production: calls and prospects // The 6th Kazakhstan International conference is labour "Protection and industrial safety", Kazakhstan. – Astana, 2016.

2. Basic indexes of labour protection in Kazakhstan on January, 1, 2015 //The 6th Kazakhstan International conference labour "Protection and industrial safety", on April, 27-28 2016, Kazakhstan. – Astana, 2016.

3. Amanbekova A.U. About perfection of legal frameworks of professional pathology // Materials of science-practice Republic conference, Karaganda, 2015.

4. Poteryaeva E.L., Logvinenko I.I., Ivleva G.P. and other. Strategies of health working providing in the harmful terms of labour on the far north (on the model of AK of "Alrossa") // Hygiene, organization of health protection and occupational pathology: collection of scientific works XLIV science-practice conference with international participants. - Novokuznetsk, 2009. - 105-108 p.

5. Kontorovich E.P., Ponomareva O.P. Early exposure of psychogenic risk of violation of workers health factors // Medicine of labour and industrial ecology. - 2015. - № 9. – 74 p.

6. Salnikov A.A., Shindyaev A.V., Pheshenko O.N., Kutuzova N.V. Conception of approach of the systems in the estimation of occupational take and development of prophylactic measures // Medicine of labour and industrial ecology. - 2015. - № 9. – 128 p.

7. Novikova T.A., Taranova V.M. Role of the regional programs on the improvement of terms and labour protection in a management professional risks // Medicine of labour and industrial ecology. - 2015. - № 9. – 105 p.

8. Kiryakov V.A., Suhova A.V. Occupational take of illnesses of the bone-muscle system at working ore mining and processing combines // Medicine of labour and industrial ecology. - 2015. - № 9. – 68 p.

Тұжырым

Балқаш мыс байыту зауыты бойынша кәсіптік аурудың төмендігі анықталды, бұл жұмыскерлердің жалпы соматикалық аурулармен жалпы жүйе қатарына жатқызылуымен байланысты, ал олар кәсіптік ауру деп саналмайды. Кәсіптік

ауруды анықтау үшін зиянды, қауіпті және қолайсыз еңбек жағдайында қызмет атқаратын тұлғаларға кәсіптік патология саласында білімі бар дәрігерлердің қатысуымен сапалы алдын-ала және мерзімдік қарап-тексерулерді жүргізу қажет. Зиянды еңбек жағдайында қызмет атқаратын тұлғаларға жүргізілген кәсіптік қарап-тексерулер деректері бойынша кәсіптік пен жалпы ауруларды алдын-алу мақсатында «жоғары қауіпті» топтары құрылуы қажет және оларға стационарлық медициналық оңалту іс-шаралары жүргізілуі және емханаға жатқызылуы тиіс.

Түйінді сөздер: кәсіптік аурулар, жанамаласқан патология, алдын-ала және мерзімдік кәсіптік қарап-тексерулер, диспансеризация, кәсіптік патолог

Резюме

Выявлена низкая выявляемость профессиональных заболеваний по Балхашскому медеплавильному заводу, связанное с тем, что рабочие уходят в общую сеть с общесоматическими заболеваниями, которые не диагностируются как профессиональные. Для выявления профессиональных заболеваний необходимо качественное проведение предварительных и периодических медицинских осмотров лиц, работающих во вредных, опасных и неблагоприятных условиях труда с участием врачей, обладающих знаниями в области профпатологии. По данным профосмотров лиц, работающих во вредных условиях, должны создаваться группы «повышенного риска» в целях профилактики как общих, так и профессиональных заболеваний и которые должны подвергаться диспансеризации и стационарной медицинской реабилитации.

Ключевые слова: профессиональные заболевания, сочетанная патология, предварительные и периодические профосмотры, диспансеризация, профпатолог