

actions: (total number of technical actions actually performed during the shift) / (total number of recommended technical actions during the shift). OCRA methods have been developed in Italy to analyze worker's exposure to tasks featuring various upper-limb injury risk factors. OCRA checklist is simpler and not so accurate than OCRA index. It can be used in risk evaluation to produce the first "map of risks".

The present study **object** at to evaluate relationships between MSDs diagnosis and results of OCRA assessment. It also intends to analyses to the predictive validity of OCRA by confrontation with of video analyses results.

Materials and methods: The study was performed on a group of 32 people working in the confection department. They work on two shifts of 8 hours each. We observed the workplace. We complied OCRA checklist; both filmed with the video camera the professional activity of some workers. Evaluation of the final checklist for the work (recovery score + frequency score + force score + posture score) x multiplier for the total duration of repetitive tasks.

Results: Workers (42.0%) that present symptoms during one year were submitted to a clinical examination by a orthopedist to identify musculoskeletal diseases. OCRA checklist was applied in the same workplaces (62.3%) by two skilled ergonomists at the plant. Workplaces with moderate/high scores (n=57) on MSDs risk (OCRA checklist score ≥ 16.5) at elbow, wrist and fingers for means of OCRA predictive validity. The working activity requires the use of moderate force for (3 points on the Borg scale): Using tools, Pressing or handling components, Lifting or handling objects. OCRA checklist results it appears that OCRA has a broader scope due to the integration of four occupational hazards, including vibrations exposure, and provides a higher predictive validity. According to the results, observational risk assessment methods seems to be "useful" tools that should be valid and pointed to workplaces that workers are exposed to MSDs risk factors. Discrepancies in results between of MSDs risk assessment methods and clinically diagnosed MSDs cases should be analyzed and reflected that a minimalist approach or even simplistic, should, *prima facie*, to present results with similar levels of agreement. The risk factor "frequency of technical actions" or repetitively is crucial to the development of MSDs that is confirmed in our results (0.89), instead posture had just half of the weighting of OCRA score (0.42). **Conclusions:** All these processes, due to the duration, frequency of execution (hundreds of times per day) and the amplitude of the movements represent risk factors for the musculoskeletal disorders.

Keywords: ergonomics - OCRA index, repetitive action, risk assessment, technical operation

5. EVOLUTIONAL ASPECTS OF DISABILITY APPEARANCE IN REPUBLIC OF MOLDOVA

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Introduction: In 2012 was established that 1 billion people or 15 % from population of the world live with a kind of handicap. 2/3 are from poor countries with transition economy, as Republic of Moldova.

Purpose: Literature review and comparative analysis of EU countries in the field concerned.

Materials and methods: We use math-statistic method, historical and analytical-comparative method. We evaluate the official files from Medical Board for Vitality, annals and other papers.

Results: From 141.4 thousand people with disability in 2002 year, in 2013 rose to 183 thousand people. Also payees of social protection agency are 136 thousand, 510 from 10 thousand of general population. About 1 person from 6 has a grand level of disability (first group of invalidity with 0-20% of working capacity). Persons with handicap in Republic of Moldova are 5.2% from total population of the country, 2.1% of that are children. 61% of them are living in the countryside. About 130.7‰ in 2012 year acquired payee for disability, 3.0‰ from them for professional disease and injury at the workplace, 1.9‰ participated at the Chernobyl accident. Women with disability in 2008 are 2.1%; 473 thousand women and 563 men to 10 thousand people.

Conclusion: Disability is a global public health problem, besides Republic of Moldova. Determining factor is the aging population process, the risk factors from the occupational area and the high level of associated disease (diabetes, cardiovascular disease, cancer and others). The determination of disability service in Republic of Moldova is in the process of reformation, based on the implementation International Classification of Functioning, Disability and Health, also known as ICF.

Key words: disability, occupational disease, injury at the workplace

6. HYGIENIC ASSESSMENT OF LEAD CONTENT IN THE ENVIRONMENTAL MEDIA AND POSSIBILITIES TO REDUCE THE ASSOCIATED RISK ON HUMAN HEALTH

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Introduction: Human health and chemical safety are key elements in the socioeconomic development of the country. Research conducted in the past in the Republic of Moldova regarding the environmental pollution with chemicals shows the importance of studying their continuity and to elucidate the impact on human health. Lead is one of the major pollutants of the environment due to its cumulative toxic effects and of which the concentration increased alarmingly recent decades. Lead is considered the pollutant number one, due to large number of poisoning.

Purpose and objectives: Hygienic assessment of lead content in the environmental media in Moldova and developing measures to minimize the negative impacts on human health.

Materials and methods: The project is based on using the methods of laboratory investigation hygienic and instrumental (determination of lead content in soil, atmospheric air, biological substrates), statistical methods.

Results: Lead is used by people for hundreds of years, but no one thought about the possible consequences of lead exposure. In the twentieth century have expanded the scope and quantity of lead production. Most of the lead detected in food, water, soil and dust are of anthropogenic origin, but not natural. The main source of lead in the environment is water, due to use of lead pipes, lead-based paints. The most important mobile sources of lead in ambient air in countries where leaded petrol is used, are vehicles. Sources of lead pollution are emissions from road, rail and sea transport, lead in paints, cosmetics, traditional medicines, lead in construction materials and use of lead acid batteries. After statistical data in Moldova are used annually about 5,000 tons of fuel with additive lead tetraethyl. According to official statistics of the World Health Organization 25 % of the overall population morbidity are due to the influence of chemicals. Human exposure to lead is estimated at 143 000 deaths each year and 0.6 % of the global burden of disease. Lead is a toxic that affects many body systems, including neurological, hematological, immunological, gastrointestinal, cardiovascular and renal systems. Child exposed to lead is estimated to contribute to about 600 000 new cases of children with intellectual disabilities each year. The concentration of lead in blood is an informative biomarkers for exposure assessment of lead on humans. The most susceptible are children of early age, especially in its central nervous system is affected, manifesting itself by reducing intellectual capacity and behavioral disorders. Adverse effects in this group occurs when the lead content in the blood is less than 200 mkg / l

Conclusions: Test results of environmental pollution with lead in the surveillance activity wear only an informational components description. Research conducted in the past in the Republic of Moldova in environmental pollution with chemicals shows the importance of studying their continuity and to elucidate the impact on human health.

Key words: lead, environmental media, human health