vibration exposure was not above the Swedish threshold limit of 5 m/s², nearly 37% of those surveyed showed signs of carpal tunnel syndrome (CTS). Analysis of the biological markers in the blood samples will be performed soon.

Conclusion This study shows that health effects from exposure to hand-arm vibration are common in the study group even if the vibration exposure is below the Swedish occupational threshold limit of 5 m/s².

1352 OCCUPATIONAL DISEASES IN SELF-EMPLOYED WORKERS

¹M Luwel, ^{2,3}S Keirsbilck*, ^{2,4}B Nemery. ¹SPMT-ARISTA, External Service for Prevention and Protection at Work, Brussels, Belgium; ²Clinic for occupational and environmental medicine, University Hospital Gasthuisberg, Leuven, Belgium; ³IDEWE, External Service for Prevention and Protection at Work, Heverlee, Belgium; ⁴Environment and Health, Department of Public Health and Primary Care, K.U.Leuven, Leuven, Belgium

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Introduction Even in countries with a well-developed occupational health legislation and infrastructure, self-employed workers generally fall outside the scope of the legislation and services that are intended to prevent accidents and disease at work. In curative medicine, little attention is paid to possible occupational causes of medical conditions.

Yet, self-employed people also run occupational health risks in agriculture, crafts, or service professions. The burden of occupational disease among self-employed workers is not known.

Methods A retrospective study was conducted on records of all currently self-employed workers who were referred to the outpatient clinic dedicated to occupational and environmental health within the division of pneumology of the University Hospitals of Leuven during the period 2000–2014. Their main demographic, occupational and medical characteristics were compared to those of salaried employees seen during the same period.

Results 150 self-employed workers were identified. They represent 5% of all consultations during this period. 80% were men. 91% had active working age. 70% worked as self-employed throughout their careers, 30% had also worked as salaried worker in the past. The main sectors were construction (31%), food (12%), agriculture (11%) and beauty care (11%). 73% had respiratory disease with asthma as the most common diagnosis (n=49). The suspected causative agents were synthetic chemicals (n=52), biological agents (n=42) and mineral substances (n=33). Subpopulations of bakers, painters and hairdressers had non-significant different characteristics compared to their salaried colleagues, except for age in hairdressers.

Conclusion Self-employed workers may suffer from occupational respiratory and non-respiratory diseases. Although the evidence is largely anecdotal, it appears that the severity at clinical presentation is higher in self-employed persons than in salaried employees. Although the socio-economic consequences of occupational disease are often dramatic for most workers, it appears that this is even more the case for self-employed persons.

1312 THE RELATIONSHIP BETWEEN THE POST-TRAUMATIC STRESS SYNDROME AND THE OCCUPATIONAL STRESS AMONG THE FIREFIGHTERS IN KOREA

¹A Ram Kim*, ²Joo Hyun Sung, ¹Seong Woo Cho, ³Kyoung Sook Jeong, ³Yeon-Soon Ahn, ¹Chang Sun Sim. ¹Department of Occupational and Environmental Medicine, Ulsan University Hospital, University of Ulsan College of Medicine, Ulsan, Republic of Korea; ²Department of Occupational and Environmental Medicine, Gyeongsang National University Changwon Hospital, Gyeongsang National University School of Medicine, Changwon, Republic of Korea; ³Department of Occupational and Environmental Medicine, Dongguk University Ilsan Hospital, Goyang, Republic of Korea

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Introduction Traumatic stress like experience in witnessing a suicide or accidents can cause post-traumatic stress disorder (PTSD). Firefighters are exposed to traumatic stresses due to their professional nature. It is known that dealing with extra stress after the event can be a risk factor in development of the disease. Thus, we aim to study to see whether occupational stress can act as a risk factor in development of PTSD.

Methods 310 among total 315 professional firefighters were given written informed consents and answered self-reported questionnaires. Impact of Event Scale-Revision (IES-R), Life Event Checklist (LEC) and Korean Occupational Stress Scale (KOSS) questionnaires were used to assess the PTSD and determine the level of occupational stress. SPSS 21.0 was used for all statistical analysis.

Results According to the IES-R questionnaire, 75 out of 310 subjects (24.2%) were in risk of developing PTSD. The LEC score which is designed to screen one's experience of potentially traumatic events was significantly high in the PTSD risk group compared to no risk group (p=0.008). Total KOSS score of PTSD risk group (49.21±10.90) was also significantly higher than that of no risk group (45.17±10.86) (p=0.005).

Conclusion The prevalence of PTSD was significantly higher in firefighters than general population in several studies, and result of our study also corresponds well. Furthermore we could confirm that the more impact traumatic stress one has experienced in life, the more likely it is to develop PTSD and occupational stress is playing as a risk factor in the development of the disease. By identifying the level of occupational stress and the impact of traumatic event using simple self-reported questionnaires, it would be easier to detect the people who are in risk of developing PTSD and take early medical intervention to prevent the progression of PTSD.

1199 HOW DO OCCUPATIONAL HEALTH PHYSICIANS IN A BELGIAN OCCUPATIONAL HEALTH SERVICE PERCEIVE THEIR CURRENT AND FUTURE ROLE IN RE-INTEGRATION?

¹André Kruse*, ^{1,2}Philippe Kiss, ^{1,2}Marc de Meester. ¹Securix Occupational Health Service, Ghent, Belgium; ²Department of Public Health, Ghent University, Ghent, Belgium

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Introduction Recently a new legislation on re-integration of employees on long-term sick leave was introduced in Belgium. The purpose is to facilitate return to work of disabled

employees with adapted or other work. The more prominent social importance and government demand could change the role of the occupational health physician (OHP).

The question could be asked how OHP's perceive their changing role in the re-integration process?

Methods 61 OHP's (93.8% response) working in a Belgian occupational health service participated in a survey. Five function roles were defined:

1. 'healthcare provider': helping the employee (trust relationship);
2. 'coach': coaching and motivating the employee;
3. 'service provider': focus on employer's situation;
4. 'expert': focus on evidence based medical evaluation;
5. 'controller': employees who are able to work, obligate to do so.

The frequency of each role was asked for three different situations: occupational medical examination (OME), current attitude in re-integration examination (CARE), best possible attitude to assume in re-integration examination (BARE). Mean scores (0–10) were calculated per function role, a higher score was concordant with a higher frequency.

Results In all 3 situations the roles of healthcare (7.3–7.7) and service provider (5.8–6.2) scored similarly. The coach role was highest in the BARE (8.2), followed by the OME (7.7) and the CARE (7.0). The expert role was predominantly in the BARE (8.2) compared to the OME (6.7) and the CARE (6.6). The score for controller increased gradually from 2.9 (OME), over 3.5 (CARE) to 4.8 (BARE).

Discussion The OHP is a healthcare and service provider in all circumstances. In the BARE the most important roles were those of expert and coach, followed by healthcare and service provider. Although the role of controller had the highest score in this situation, it still remained the less important of the five roles.

1221 CHANGES IN BODY MASS INDEX BEFORE AND AFTER LONG-TERM SICK LEAVE DUE TO CANCER AMONG WORKERS: J-ECOH STUDY

^{1,2}K Kuwahara*, ³M Endo, ⁴A Nanri, ²I Kashino, ⁵C Nishiura, ⁶A Hori, ⁵C Kinugawa, ⁷T Nakagawa, ⁷T Honda, ⁷S Yamamoto, ⁸T Imai, ⁸A Nishihara, ⁹A Uehara, ¹⁰M Yamamoto, ¹¹T Miyamoto, ¹²N Sasaki, ¹²T Ogasawara, ¹³K Tomita, ¹⁴S Nagahama, ¹⁵T Kochi, ¹⁵M Eguchi, ¹⁶H Okazaki, ¹⁷T Murakami, ¹⁷M Shimizu, ¹⁵I Kabe, ²T Mizoue, ¹⁶S Dohi. ¹Teikyo University Graduate School of Public Health, Tokyo, Japan; ²National Centre for Global Health and Medicine, Tokyo, Japan; ³Tokyo Women's Medical University, Tokyo, Japan; ⁴Fukuoka Women's University, Fukuoka, Japan; ⁵Tokyo Gas Co., Ltd., Tokyo, Japan; ⁶University of Tsukuba, Ibaraki, Japan; ⁷Hitachi, Ltd., Ibaraki, Japan; ⁸Azbil Corporation, Tokyo, Japan; ⁹Seijinkai Shizunai Hospital, Hokkaido, Japan; ¹⁰Yamaha Corporation, Shizuoka, Japan; ¹¹Nippon Steel and Sumitomo Metal Corporation Kimitsu Works, Chiba, Japan; ¹²Mitsubishi Fuso Truck and Bus Corporation, Kanagawa, Japan; ¹³Mitsubishi Plastics, Inc., Tokyo, Japan; ¹⁴All Japan Labour Welfare Foundation, Tokyo, Japan; ¹⁵Furukawa Electric Co., Ltd., Tokyo, Japan; ¹⁶Mitsui Chemicals, Inc., Tokyo, Japan; ¹⁷Mizue Medical Clinic, Keihin Occupational Health Centre, Kanagawa, Japan

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Introduction To establish effective supporting system for workers returning from sick leave due to cancer is an emerging global issue. Better understanding of their physical conditions would provide important information to address this issue.

However, even simple information, for example, weight reduction by cancer type, is scarce in occupational settings. Here, we report body mass index (BMI) trajectories before and after long-term sick leave due to cancer among workers in Japan.

Methods This is a cohort study among workers in Japan who took sick leave (consecutive 30 days or more) due to cancer between April 2012 and March 2013 and returned to work until March 2014 using data from Japan Epidemiology Collaboration on Occupational Health Study. Follow-up was conducted using annual health examination data until March 2016. Longitudinal data on BMI was extracted from the annual health examination database. BMI trend change before and after sick leave and effect modification by cancer type on the change was estimated using multivariable mixed models.

Results Over 90 000 workers belonged to the participating companies in 2012. One-hundred one workers newly took sick leave due to cancer in 2012. Data on BMI at least two time-points before and after sick leave each were available in 49 workers. Overall, weight reduction occurred after returning from sick leave from cancer ($p < 0.001$). The tendency of weight reduction after returning from sick leave was significantly different by cancer type ($p < 0.001$). Greater weight reduction was observed in esophageal and stomach cancer ($n = 10$).

Discussion We found heterogeneity in weight reduction by cancer type after returning from sick leave due to cancer. The data suggest that occupational health professionals should pay more attention in weight reduction for workers who returned from long-term sick leave due to esophageal and stomach cancer.

1473 OCCUPATIONAL RISKS IN RAILWAYS IN MOROCCO

D Lahlou*, S Touil, B Benali, F Lhallabi, A El Kholti. *Casablanca faculty of medicine and pharmacy, Hassan II university, Morocco*

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Introduction The sector of railways in Morocco gather numerous activities, therefore occupational risks are also numerous and varied.

Methods Our study analyses all occupational diseases and those with an occupational nature reported during 5 years from 2005 to 2009. This study is about all workers in the railway sector in Morocco. The average staff number is 8668.

Result The number of occupational accidents reported each year varied between 170 and 250 cases, while the number of commuting accidents did not exceed 40 cases per year.

Discussion However, several studies showed that several risks were high in the railway sector, particularly the cardiovascular risk. The mesothelioma and asbestosis risks are also elevated because of the presence of asbestos fibres in the atmosphere. And finally, these workers are also confronted to noise nuisance and psychosocial risks.

Conclusion These occupational diseases and those with an occupational nature lay a heavy toll on human life and a significant financial burden on the industry and social security schemes. So the purpose of our work was to clarify the various hazards present in the rail transport sector in Morocco.