handling (29.5%, out of 1811), hand-arm vibrations (13.9%), repetitive movements of the upper limb (10.9%), whole-body vibrations (7.6%), awkward posture of the upper limb (7.1%), and awkward body posture (4.5%).

Discussion The exposure to biomechanical overload seems to play a role in generating potentially work-related conditions. Expanding the MAREL network to other occupational disease consultation centres in 2017 and 2018, we will contribute to already existing surveillance systems (i.e. MALPROF) by the detection of new and emerging occupational diseases and risks.

854 AN AUDIT ON THE QUALITY OF MANAGEMENT REFERRALS TO OCCUPATIONAL HEALTH SERVICE

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Introduction Managers may refer their workers for occupational health (OH) assessment when there is concern about their workers' health. To benefit from OH services, referrals need to include necessary information to enable OH professionals carrying out assessment and communicate information back. The national management referral form has been designed for this purpose. The aim of this audit is to analyse management's compliance to this form.

Methods Ten random new management referral forms received in May 2017 were pulled and analysed under ten separate headings;

1. Employee details,
2. post details,
3. job demands,
4. current medical issues,
5. sickness absence grid,
6. reason for referral,
7. description of main issues and relevant facts,
8. specific advice requested,
9. manager's details and
10. employees consent.

Data obtained was analysed using Excel Spreadsheet. Each completed headings were scored ten and zero score was given for incomplete heading. The results were totalled and given a final score in percentage value. The headings were further broken down into five aspects for analysis:

- Legal (consent),
- Demands of duty to better inform OH (post details and job demands),
- Effect of health issues to work (current medical issues and sickness absence grid),
- Manager's concern (reason for referral, describe the main issues and relevant facts, specific advice requested), and
- Communication (employee's and manager's details).

Result Total manager's compliance was 79.8%. Compliance to legal aspect was 40%. Compliance to provide information regarding demands of duty to better inform the OH was 90%. Compliance to provide information regarding effect of health to work was 85%. Compliance to provide information to aid communication was 70%. Compliance to provide information to address manager's concerns was 100%.

Discussion Management's general compliance to the national management referral form was good. Specific aspects of manager's referral can be further improved. Results were discussed at service user's forum and a re-audit is planned in the future.

811 SURVEY ON HEALTH INTERVIEW SHEETS FOR ANNUAL HEALTH CHECKUPS IN JAPAN

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Introduction In Japan, all workers are required by law to receive annual health checkups. Annual health checkups are composed of health-based interviews (focused on subjective and objective complaints, anamnesis, and work history, for example), laboratory tests, chest X-rays, and ECG. Because interview sheets are not standardised, they are unique to each hospital. The aim of this study is to clarify the variety of interview sheets and to consider the issues surrounding them.

Methods We requested interview sheets from each hospital with cooperation from the National Federation of Industrial Health Organisation. We investigated the items that were asked in each sheet.

Results We received 70 interview sheets. Excluding six sheets because of duplication, we analysed 64 interview sheets. Sixty-two sheets asked about anamnesis (96.9%), 61 asked about subjective and objective complaints (95.3%), and 26 asked about work history (40.6%). There were no items that were asked on all interview sheets. There were 305 detailed items of anamnesis in total. Four sheets asked about working hours, three sheets asked about overtime hours, and six sheets asked about hazardous work.

Discussion Anamnesis, subjective and objective complaints, and work history are the items designated to interview sheets by law, but there were only a few sheets containing all these items. The purpose of annual health checkups is not only to detect diseases, but also to determine whether working environments are suitable for workers' health conditions. For this reason, these items are very important but most sheets do not include it. Subjective and objective complaints were asked for in most sheets, but details of it differed across sheets. Lifetime health management and comparisons of health checkup results are difficult because of non-standardised interview sheets. We suggest the standardisation of interview sheets in the future.

331 CANCER INCIDENCE IN SWEDISH FIREFIGHTERS – PRELIMINARY RESULTS OF AN EXTENDED FOLLOW-UP OF THE NOCCA STUDY

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Introduction Firefighters may be exposed to a wide range of carcinogens by inhalation or dermal exposure. They also work shift which may disrupt the circadian rhythm. Previous studies have been inconsistent concerning cancer risks among

firefighters. The aim was to evaluate the cancer incidence in Swedish firefighters.

Methods This cohort study is based on the Swedish part of the Nordic Occupational Cancer (NOCCA) project, including 6 million people who participated in one or more population censuses in 1960, 1970, 1980 and 1990. Cancer diagnoses 1961–2009 were obtained from the Swedish Cancer Registry. We identified 8136 male firefighters. Female firefighters were excluded because there were too few. SIRs were calculated with the cancer incidence rates for the entire national population used as reference rates.

Result There was no excess risk for all cancer sites combined (SIR=1.01, 95% CI: 0.96 to 1.06). A statistically significant excess was found only for non-melanoma skin cancer (SIR=1.48, 95% CI: 1.20 to 1.80), although the risk did not increase with duration of employment. There was a small, but statistically significant excess of prostate cancer among firefighters who had worked 30 years or more.

Discussion The risk of prostate cancer was increased among long-term exposed firefighters, and a possible excess of non-melanoma skin cancer was found. An increased risk of prostate cancer has been reported in some earlier studies of firefighters, but excesses of others cancers earlier reported in association with firefighting were not confirmed. Our results do not support an overall excess risk of cancer among Swedish firefighters.

340 MYOCARDIAL INFARCTION AND RETURN TO WORK

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Introduction After myocardial infarction (MI) only 50% to 60% of people still work and the time to stay out of work is in Poland often 9 months. The aim of the project was to elicit factors that have an impact on the return to work after the first myocardial infarction.

Methods A questionnaire survey was performed among all patients occupationally active till the time of the MI. The questionnaire covered recent data on work, working environment, health status, lifestyle. 306 people received the questionnaire. The analysis included 150 surveys.

Results As much as 76.7% (115) people returned to work. The average age of workers prior to infarction was 52.6±7.1 years, and was significantly lower than that of people who did not return (55.3±6.8). The subjects returned to work after an average of 6.5 months (range 0.5–48). The group of people who returned/did not return to work did not differ in respect to education, place of residence, classical risk factors, type of MI, ejection fraction and undertaken rehabilitation. Subjects who returned to work significantly more likely used to undertake physical activity. People who did not return to work significantly more often rated their health as 'worse than before the MI' (p=0.026) complained the chest pain (71.4% vs 38.6%, p=0.026), suffered from neurosis (25, 7% vs 10.4%, p=0.047) and were anxious about re-infarction (71.4% vs 49.6%, p=0.023). As many as 20.9% of subjects claimed that the work was too heavy, while for 49.6% the job was too stressful.

Discussion The results indicate that age, subjective health status and the presence of pain in the chest, neurosis and anxiety play an important role in the return to work after MI. For people who restarted working, work heaviness and stress occurring at work were the major problems.

337 DIETARY HABITS IN OCCUPATIONALLY ACTIVE MEN WITH FIRST MYOCARDIAL INFARCTION

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Introduction Only a few studies have been undertaken to analyse the dietary habits of people with cardiovascular diseases. The aim of this study was to evaluate the dietary behaviours of working people after the first acute cardiovascular incident.

Methods In the study Functional Activity Questionnaire (FAQ) was used. The study was performed in two groups: the first group were all men hospitalised during one year in two clinics of cardiology, professionally active until the first myocardial infarction (MI). It comprised 243 men, aged 26–70 years. The reference group consisted of 403 men, blue- and white-collar workers aged 35–65 years. Frequency of consumption of each product among patients with acute myocardial infarction and in the reference group was calculated using basic methods of descriptive statistics. Multivariate logistic regression model was used to determine the risk factors for myocardial infarction. All statistical analyses were performed using the STATISTICA version 8MR 3 c software.

Results Body mass index of MI patients was significantly higher (p=0.006). The frequency of consumption of particular products in MI group and in the reference group differed significantly for 11 of 21 products. Patients with MI significantly less frequently reported daily consumption of fruits, raw vegetables, cheese, vegetable fats and fish. In this group consumption of salty (p=0.0226) or fatty (p<0.0001) foods were significantly higher.

Discussion It has been shown that after adjusting for age, education and type of work, the daily consumption of fish, salads and cooked vegetables, fruits and vegetable oils significantly reduced the risk of myocardial infarction. Increased MI risk was associated with obesity and preference for fatty foods. We found, that the diet significantly modified risk of MI in examined workers. This indicates that an important part of prevention activities among working people should be an education about proper dietary habits.

232 A HEALTH-BASED RISK ASSESSMENT FRAMEWORK IN THE WORKPLACE TO INTEGRATE THE MANAGEMENT OF HEALTH AND SAFETY RISKS: A REVIEW

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Introduction Despite significant global improvement in occupational health and safety over the past few decades, workplace deaths and injuries are still occurring. At the same time, many