Results The total cost of the 40 cases was 181,072.3€ and the average cost per case was 4,526.8€. Cancer accounted for 84% of all cases. Men accounted for 93% of the total cost and those over 65 years were 76% of the total. The amount billed for the 40 cases was 146,964.6€.

Conclusions This study provides precise economic information that must be considered in the coordination needed between the NHS and the Social Security, which should significantly contribute to the reporting of ODs and their prevention.

Poster Presentation

Developing Countries

0155 NEGOTIATING RISKS AND UNCERTAINTIES: HEALTH AND SAFETY DECISION-MAKING IN THE MINES OF POTOSÍ (BOLIVIA)

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It is generally agreed that knowledge of the causes and consequences of a particular OHS risk influences the way people prepare for and respond to it. My ethnographic research among the cooperative miners working in Potosí's Cerro Rico shows however a much more complex scenario, in which miners simultaneously face a number of physical, geological, socio-political and economic risks and uncertainties as they go about their work and lives which must be carefully weighed against each other. Miners often have little or no control over most of these risks that simultaneously affect them, and health and safety risks are only a small group of concerns. Prone to take risks to their health at work as a strategy to manage other risks that simultaneously affect them Potosí's miners are well aware of the potential losses of taking OHS risks, but also of the potential gains of their decisions. This presentation offers an anthropological account of the factors, conflicts and negotiations that shape voluntary health and safety risk taking amongst the cooperative miners working in the Cerro Rico of Potosí. Unveiling the complex factors and relationships that impede the miners' ability to respond to OHS risks as per their wishes and understandings this presentation demonstrates the need for revisiting the value of OHS risk perceptions as strategy to eliminate occupational injuries.

Poster Presentation

Cancer

0156 LUNG CANCER AMONG MEAT INDUSTRY WORKERS: RESULTS OF THE ICARE STUDY

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Purpose Lung cancer among butchers and others meat workers has been investigated in a French population based case-control study ICARE.

Methods Detailed information was collected on occupational history and smoking habits from 2926 patients with histologically confirmed lung cancer and 3555 matched controls. Jobs were defined according to the international Standard Classification of Occupations (ISCO) codes and categorised according to the French Nomenclature of Activities (NAF). Smoking history was combined into a comprehensive smoking index (CSI) that included mean number of cigarettes/day, duration and time since cessation.

Personal history of hand warts were used as a proxy for an eventual exposure to the HPV (2,7).

Odds ratios (OR) and 95% confidence intervals (CI) were estimated using unconditional logistic regression models and controlled for well-established risk factors for lung cancer including smoking and occupational exposure to asbestos.

Results We found an increased risk of lung cancer among meat workers (101 cases/85 controls; OR=1.46, 95% CI=1.01–2.13), especially among those who started working before the age of 17 (OR=1.72, 95% CI=1.08–2.74). The risk was concentrated in workers exposed to slaughtered meat including Slaughterers (ISCO code 77320) and Meat Cutters (ISCO code 77330). Associations were not affected by history of hand warts. However, pronounced inverse associations for lung cancer were shown with personal history of hand warts (OR=0.63, 95% CI=0.56–0.71).

Conclusions Working in meat industry may increase risk of lung cancer suggesting the role of oncogenic viruses other than HPV. Associations with history of hand warts remain to be clarified by future studies.

Oral Presentation

Occupational Medicine (SCOM/Modernet)

0157 CHARACTERISTICS OF INDIVIDUALS RECEIVING A DISABILITY BENEFIT AND PREDICTORS OF LEAVING THE DISABILITY BENEFIT SCHEME. A 5 YEARFOLLOW-UP STUDY

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Nowadays, work disability is one of the largest social and labour market challenges for policy makers in almost all OECD countries. Understanding of factors associated with long-term work disability may be helpful to identify groups of individuals at risk for disability benefit entitlement or continuing eligibility, and to develop effective interventions for these groups. The purpose of this study is to give insight into the main diagnoses of workers who qualify for disability benefit and how these diagnoses differ between age groups, gender and educational level. Moreover, using a 5 year follow-up period, we study the duration of the disability benefit and examine how durations differ between individuals with different characteristics.

Our study population consisted of 31 733 individuals receiving a disability benefit from the Dutch Social Security Agency (SSA). Data were collected from the databases of the SSA. Disorders were assessed by an insurance physician at application. We tested for differences in socio-demographics, main diagnoses and comorbidity for those entering and leaving disability benefits.

Mental disorders were most often registered as the main diagnosis for work disability. Diagnoses differed between age groups and educational level categories. For younger and higher educated individuals mental disorders was the main diagnosis for work disability, and for older and lower educated individuals physical disorders (mainly musculoskeletal, cardiovascular and cancer). Five years after approval, 82% still received disability benefits. Outflow was lowest for individuals with (multiple) mental disorders and individuals with comorbidity of mental and physical disorders, and highest for individuals with (multiple) physical disorders.

Oral Presentation

Other

0158 WORK IN HEAT: A CHALLENGE FOR THE KIDNEYS

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An epidemic of chronic kidney disease of unknown aetiology (CKDu) has emerged during the last decades, first seen in agricultural and disadvantaged communities along the Central American Pacific coast but now also evident in other countries like Sri Lanka and east India. The aetiology is likely multicausal, but occupational and environmental factors are in focus - in Central America heat stress during strenuous physical work with repeated fluid losses, in Sri Lanka environmental contaminants and agrochemicals. CKDu is a silent disease until late stages. Thus, screening with blood and urine sampling is needed for early detection

We now have good tools for CKDu research: Heat and humidity in the workplace can be monitored with affordable climatic loggers. Core body temperature can be exactly measured by swallowed sensors or estimated from heat strain models. Heart rate loggers and accelerometers enable estimations of workload. Exposure to toxins is assessed through environmental monitoring or by biomarkers of exposure. Standardised questionnaires for heat-related symptoms exist, and core protocols for assessment of renal function and kidney disease outcomes in epidemiological studies have been elaborated (the DEGREE initiative).

Occupational epidemiologists have an important role in the battle against CKDu. Collaborative and comparable studies are needed, aligned with mechanistic understanding. Such studies range from population-based prevalence studies (including also migrant workforces) to studies of the effect of piecework in hot climates, and evaluations of interventions to prevent heat

strain by access to water, shade and safe toiletry at the workplace.

Poster Presentation

Cardiovascular Disease

0159 RELATION BETWEEN WORK-RELATED SILICA EXPOSURE IN FOUNDRIES AND CARDIOVASCULAR DISEASES

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Background Work-related exposure to silica is a health hazard worldwide causing i.e. silicosis. Some studies have also presented elevated cardiovascular disease mortality in relation to silica exposure. However, few studies focus on these diagnoses and there is lack of studies accessing morbidity. The aim of this study is to examine the morbidity and mortality of different cardiovascular diseases among Swedish silica-exposed foundry workers.

Methods Measurement database, consisting of historical and present measurements (1968–2006) of respirable silica exposure, are matched against job categories, the different foundries and 4 time periods (1968–1979, 1980–1989, 1990–1999, 2000–2006) using mixed model. The cohort morbidity and mortality data were matched against registries from the Swedish National Board of Health and Welfare. SPSS and STATA were used for statistical analysis, with STATA stratified for age, gender and year.

Results Cardiovascular disease (SMR 141, 95% CI 126–157) and stroke mortality (SMR 161, 95% CI 118–214) showed significant elevation. Myocardial infarction showed statistically significant reduction (SMR 73, 95% CI 60–89). Results of morbidity show significant elevation of stroke (SIR 134, 95% CI 120–150). Mean age at the time of first morbidity is 60–64 years.

Conclusions This study focused on the relation between silica exposure and cardiovascular disease morbidity and mortality. Our results suggest a relation with statistically significant SMRs and SIRs, and morbidity in stroke at a younger age than the general population. Cardiovascular disease is a major cause of death worldwide, and we find a need for further examination with more extensive mapping of confounders and medical history.

Oral Presentation

Other

0160 RETINAL DETACHMENT AND HEAVY LIFTING: FINDINGS FROM A REGISTER STUDY IN DENMARK

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