

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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