

Oral Presentation

Cardiovascular Disease

0354 INCIDENCE OF CARDIOVASCULAR DISEASE AMONG DANISH FIREFIGHTERS – A COHORT STUDY

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Objectives To explore the incidence of selected diagnoses of cardiovascular diseases (CVD) among 11.691 male Danish firefighters, including the relative risk among different exposure groups.

Methods Trade unions, with firefighter membership records, Danish municipalities and private companies covering firefighting assignments supplied historical employment records to this study. The Supplementary Pension Fund Register, with information on all employees in Denmark, was used to establish two occupational reference groups: a) a random sample from the employed male population and b) the military. Information on CVD, 1977–2014, was retrieved from the Danish National Patient Registry. Age and calendar standardised incidence rates (SIR) were estimated using reference group rates.

Results The number of observed cases significantly exceeded the expected number for all cardiovascular diseases combined when firefighters were compared with both references. Significantly increased SIRs were also observed for angina pectoris (1.16, 95% CI=1.08–1.24), acute myocardial infarction (1.16, 95% CI=1.06–1.26), chronic ischaemic heart disease (1.15, 95% CI=1.06–1.24) and atrial fibrillation/flutter (1.25, 95% CI=1.14–1.36) compared with the general working population sample. When comparing the firefighters with the military, results reflected the same pattern. In subgroup analyses, the risk of CVD was elevated for full-time employed firefighters, but decreased with increasing duration of employment.

Conclusion Our study indicates a modest elevated CVD incidence among Danish firefighters. This study is the first large cohort study exploring the association between firefighting and CVD incidence, and more studies including more detailed information on "dose" of firefighting and potential confounding factors are warranted.

Poster Presentation

Specific Occupations

0355 MORTALITY IN A COHORT OF DANISH FIREFIGHTERS

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Objective Firefighters are exposed occupationally to a complex range of potential health threats including toxic chemicals, shift work, excessive heat, physical and emotional strain. The

aim of this study is to examine the resulting pattern of mortality among Danish firefighters.

Method Past and present male Danish firefighters were identified through systematic collection of personnel and membership records from employers and trade unions from the entire country (n=11,529). Using the unique Danish personal identification number, information on additional employment, vital status and cause of death was linked to each member of the cohort from the Supplementary Pension Fund Register, the Danish Civil Registration System and the Danish Register of Causes of Death. Standardised mortality ratios (SMRs) were calculated for specific causes of death using rates for two selected reference groups, a sample of the working population and military employees respectively.

Results Compared to both the sample of the working population and the military, overall mortality was significantly reduced among the firefighters (SMR 0.74, 95% CI 0.69–0.78 and SMR 0.87, 95% CI 0.82–0.93). In addition, the SMRs for mental disorders, endocrine disorders, suicides, accidents and other external causes were significantly reduced against both reference groups.

Conclusion Despite possible exposure to numerous occupational hazards, male Danish firefighters have a significantly lower mortality compared to both a sample of the Danish working population and the military.

Poster Presentation

Psychosocial

0356 JOB STRAIN IN MANAGERS AND WORKPLACE SOCIAL CAPITAL: A CROSS-SECTIONAL STUDY FROM THE DANISH PUBLIC SECTOR

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Background Research indicates that stressed managers could be harmful for employee wellbeing. Social capital is a construct to address the psychosocial work environment. To our knowledge no study has investigated the relationship between stressed managers and workplace social capital.

Objective This study examines the association between managers' perceived job strain and workplace social capital.

Methods Population includes all employees in the Capital Region of Denmark in 2014 (n=37.720) nested within work units (n=2499). Information on the psychosocial work environment was obtained by a web-based questionnaire (response rate 84%). Work unit managers reported job strain (high job demands/low job control) on a 7-item 5-point Likert scale. Social capital was reported by employees on an 8-item 5–7 point Likert scale and computed to an aggregated work unit score. The risk of employee rated social capital (lowest quartile) according to managers' perceived job strain was examined by logistic regression adjusting for characteristics of managers (gender, age, occupation, seniority) and work units (size (weighted), gender ratio, mean age).

Preliminary results The risk of low work unit social capital increased when the manager reported higher levels of job strain: for each unit increase of job strain (scale 1–5), the