

## Oral Presentation

## Risk Assessment

0046

**MORTALITY STUDY OF A COHORT OF CHEMICAL WORKERS PRODUCING PERFLUORINATED DERIVATIVES AND OTHER CHEMICALS**

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Since 1968 a single factory (Veneto Region, Italy) has been the largest manufacturer of perfluorinated derivatives (PF) in UE. Intermediates for pharmaceutical and crop protection chemicals have been also produced. In total 609 subjects have been employed since production began. PF are manufactured by electrochemical fluorination. Higher homologues are no longer produced since 2012. Nowadays, a groundwater pollution of PF is involving the water supplies for a population of about 1 10 000 inhabitants.

As a first step for an evaluation of long-term health effects, we conducted a retrospective cohort mortality study on male employees, hired before year 2004, at work for at least one year, followed up until June 2016 (415 subjects), using the regional mortality rates as a reference.

High serum levels of perfluorooctanoic acid (PFOA) have been detected since year 2000 covering 121 workers (median PFOA concentration, 1817 ng/g; range, 166 ng/g for nonexposed workers to 5101 ng/g for directly exposed workers).

The cohort as a whole (12,449 PYs, 79 deaths) expresses an unexpected over-mortality (SMR: 1.07; 95% CI: 0.86–1.34), mainly due to liver cirrhosis and liver tumours. The subset of employees with a certain exposure to PFOA (plant operator, maintenance and laboratory workers) (2,351 PYs, 22 deaths) shows an higher overall mortality (SMR=1.48 95% CI 0.98–2.33) and a statistically significant excess of deaths from diseases of the circulatory system (infarct; SMR: 7.21; 95% CI: 1.80–28.85) and diabetes (SMR: 6.75; 95% CI: 1.69–26.99).

The study suffers from the limited size, and mortality is not an appropriate end-point for some diseases of interest.

## Oral Presentation

## Ageing Workforce

0047

**POOR HEALTH, LIFESTYLE, WORK-RELATED FACTORS AND PREMATURE LOSS OF EMPLOYMENT IN OLDER WORKERS – RESULTS FROM THE HEALTH AND EMPLOYMENT AFTER FIFTY (HEAF) STUDY**

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**Background** Populations of Western countries are ageing; in response to this, governments encourage longer working lives. However, many workers leave paid employment prematurely.

We have examined the combined importance of poor health, lifestyle and work-related characteristics as risk factors for health-related job loss among older workers.

**Methods** 8134 men and women aged 50–64 were recruited from 24 English general practices to the HEAF study. Participants provided information on their socio-demographic, lifestyle, health (self-rated health, depression, chronic disabling musculoskeletal pain, severe difficulties in daily activities), and employment characteristics. Those in paid employment at baseline were categorised at 1 year follow-up as: 'still in work and didn't change job on health grounds' (n=4,232) versus 'not in work due to health reasons (n=101)'. The remaining participants were excluded from this analysis.

Multivariate Poisson regression with robust standard errors was used to analyse the data.

**Results** All ill-health measures were strongly associated with health-related exit from the workplace (RR for poor self-rated health=4.5, (95%CI 3.1, 6.6)). Adjustment for smoking, leisure-time physical activity (LTPA) and job dissatisfaction attenuated these associations (RR for poor self-rated health=3.1, (95%CI 2.0, 4.8)). Smoking, lack of LTPA, and job dissatisfaction (RR=5.4; (95% CI 3.4, 8.5)) were associated with health-related job loss independently of health variables.

**Conclusions** Poor self-rated health, depression, chronic disabling musculoskeletal pain and severe problems with daily activities significantly increased the risk of leaving employment on health grounds. Tackling unhealthy behaviours and improving job satisfaction could reduce the risk of exiting the workforce for older workers with poor health.

## Poster Presentation

## Developing Countries

0048

**THE TWO-DECADE CONTRIBUTION OF OCCUPATIONAL MEDICINE TRAINING IN THAILAND — EXPERIENCE FROM THE FOUNDATION TOWARD THE FUTURE**

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For two decades, the Department of Preventive and Social Medicine, Faculty of Medicine, Chulalongkorn University has firstly served the Occupational Medicine Residency training program in Thailand. Occupational physicians have dedicated their potentials to occupational medicine works in terms of health promotion in the workplaces, prevention, and occupational medical services towards Thai working population.

At present, there are 159 Thai board-certified occupational physicians. Thai occupational physicians are presently working nationwide in both public and private healthcare practice. A number of certified occupational physicians have currently occupied various top national health leading positions. Furthermore, the occupational medicine knowledge is currently essential for Thai undergraduate medical students mentioned in the Thai Medical Council's Medical Competency Assessment Criteria.

Being awarded the postgraduate diploma of occupational medicine in Thailand can be divided into 2 categories: by