

**Conclusion** Sedentary work defined by a wide-range group of occupations, is not a risk factor for VTE. Whether certain occupations with particularly high exposure to immobilised sitting positions are associated with thromboembolic events is not addressed.

## Oral Presentation

### Other

0172

#### "TO BE PRESENTED IN AN ACCEPTED MINI-SYMPOSIUM" ASSOCIATION BETWEEN OCCUPATIONAL LIFTING AND RHEGMATOGENOUS RETINAL DETACHMENT IN A NATIONAL COHORT OF SWEDISH MEN

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**Objectives** As the evidence on the possible association between lifting and retinal detachment (RD) is limited and controversial, we analysed a large population-based cohort to investigate the risk of RD arising from occupational lifting.

**Methods** We assessed the incidence of surgically treated RD occurring between 1991 and 2009 in a national cohort of 49,321 Swedish men conscripted for military service in 1969–1970. We applied a job exposure matrix to occupational data from the 1990 census to estimate the frequency of heavy lifting (>20–25 kg) at the workplace. We fitted Poisson regression models including lifting, myopia, income, and education level to estimate incidence rate ratios (IRR) and 95% confidence intervals of RRD.

**Results** We analysed 217 RD cases that occurred in 7 80 166 person-years. Estimates adjusted by myopia and socioeconomic factors support the hypothesis that the risk of RD increases among subjects lifting heavy weights at least twice per week, compared to workers not performing lifting (IRR 2.38, 95% CI 1.15–4.93, p for trend across lifting categories 0.014). Myopia was a strong negative confounder of the lifting - RD association. While RD was rare in the entire cohort (0.28 cases per 1000 person-years), the rate peaked at 7.9 per 1000 person-years among workers frequently lifting heavy loads, aged between 50 and 59 years, and affected by severe myopia.

**Conclusions** Our study provides evidence that performing heavy occupational lifting increases the risk of RD, while myopia and socioeconomic factors may be important negative confounders of this association.

## Poster Presentation

### Cancer

0173

#### RADIATION-INDUCED PERITONEAL MESOTHELIOMA AFTER EXTERNAL BEAM RADIOTHERAPY FOR PROSTATE ADENOCARCINOMA: A LONGITUDINAL ANALYSIS OF SEER REGISTRIES

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**Objective** To investigate the association between external beam radiotherapy (EBRT) for prostate adenocarcinoma (PA) and malignant peritoneal mesothelioma (MPM) using data from the US Surveillance, Epidemiology and End Results (SEER) program.

**Methods** We identified PA cases diagnosed in 1973–2013 among patients aged  $\geq 45$  years. The follow-up started one year after the primary diagnosis (to exclude synchronous cancers and limit surveillance bias) and ended at the diagnosis of MPM, other malignancies, death, or at the study end (12/31/2013). We estimated hazard ratios (HR) and 95% confidence intervals (95% CI) of MPM for EBRT, compared to no radiotherapy, by fitting Cox models incorporating inverse probability weights to account for age at diagnosis, race, year of diagnosis, primary cancer surgery, SEER register, and county's mesothelioma relative risk (proxy for individual asbestos exposure).

**Results** We observed 34 MPM cases occurring in 4,755,045 person-years (rate of 0.7 per 1 00 000 person-years, 95% CI 0.5–1.0). The risk of MPM was higher among EBRT patients (HR 2.1, 95% CI 0.9–4.8) and increased steadily with increasing latency period (1–4 years, HR 1.3, 95% CI 0.4–4.6; 5–9 years, HR 1.9, 95% CI 0.5–7.7;  $\geq 10$  years, HR 4.9, 95% CI 0.9–28). However, only 8 MPM were observed for latency periods  $\geq 10$  years.

**Conclusions** Our study supports the hypothesis that EBRT for PA is associated with MPM. However, the incidence of MPM in our study population was very low; future studies should focus on high-risk populations (e.g. former asbestos workers) to evaluate the clinical significance of the observed association.

## Oral Presentation

## Respiratory

## 0174 MORTALITY DUE TO ASBESTOSIS IN A COHORT OF FORMER ASBESTOS TEXTILE WORKERS

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**Background** Knowledge on the role of the temporal pattern of exposure to asbestos in determining mortality from asbestosis is limited. We aim at investigating how the risk of death due to asbestosis changes according to the duration of employment and the time since the last employment (TSLE).

**Methods** An historical cohort of workers from a former asbestos textile factory (active between 1946 and 84) was followed up until November 2013. For each subjects, we collected information on duration of the employment, TSLE, age and year of first employment, and sex. We estimated hazard ratios (HR) and 95% confidence intervals (CI) of death from asbestosis by fitting multivariable Cox regression models with age specified as the main temporal axis.

**Results** We identified 51 deaths from asbestosis that occurred among 1823 workers (incidence rate of 74 cases per 1 00 000 person-years). The risk of death from asbestosis increased with increasing exposure duration (HR 3.0 [95%CI 1.3–7.6] for duration of employment  $\geq 15$  years compared to duration  $< 5$  years) and declined with TSLE (HR 0.3 [95%CI 0.1–0.9] for TSLE  $\geq 25$  compared to TSLE  $< 5$  years). We observed a strong decline of mortality due to asbestosis among workers firstly employed after 1968.

**Conclusions** Information on the temporal pattern of exposure to asbestos is fundamental to estimate the individual risk of asbestosis. On the opposite of what overserved in ecological studies, the risk of death due to asbestosis declines steadily after cessation of exposure to asbestos.

## Oral Presentation

## Occupational Medicine (SCOM/Modernet)

## 0175 DIFFERENT APPROACHES FOR EARLY RECOGNITION AND PREVENTION OF NEW AND EMERGING WORK-RELATED DISEASES

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Rapid changes in working conditions constantly give rise to new occupational health risks and work-related diseases (WRDs). Monitoring these new WRDs is essential from the aspects of early recognition and prevention. In addition, it requires a comprehensive approach, using several complementary methods. One of these methods are early warning systems designed to collect information on health effects in order to trigger interventions and prevention. These systems differ in characteristics, their ability to capture new WRDs and their link with prevention. Therefore, the aim of this study is to identify sentinel and alert systems for detecting new and emerging WRDs, describe their main characteristics, and set up a basic typology. In the first phase, we conducted an extensive scientific and grey literature review and we identified 75 surveillance systems covering 26 different countries. We set up a basic typology of these systems dividing them into four main groups: compensation-based systems (21), non-compensation related comprehensive systems (38), sentinel systems (12) and public health surveillance systems aimed at workers and non-workers (7). These systems further differed in type of WRDs, coverage, data collection, evaluation of work-relatedness; follow up of new/emerging risks, link with prevention etc. In the second phase, we chose a representative selection of 12 good practise examples to be described in-depth. Through a desk research and interviews with stakeholders, we gained additional insight into drivers and obstacles regarding these systems and usage of collected data for identification of WRDs, prevention and policy recommendations.

## Oral Presentation

## Cancer

## 0176 SINONASAL CANCER FOLLOWING OCCUPATIONAL STYRENE EXPOSURE: A NEW SIGNAL OF HUMAN CARCINOGENESIS?

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**Objective** We recently suggested an increased risk of sinonasal cancer following occupational styrene exposure. The objective of the current study is to explore this finding further by including information on quantitative measures of styrene exposure and histological information on sinonasal cancer subcategories.

**Methods** We followed 73 092 workers employed in 456 small and medium sized Danish reinforced plastics companies from 1968 to 2011. Incident cases of sinonasal cancer were identified by linkage with the national Danish Cancer Registry. We modelled cumulative styrene exposure level from historical styrene measurements, company information, and survey data and estimated rate ratios (RR) of overall sinonasal cancer and histological subcategories. Due to few cases, these analyses were performed with no adjustment. To account for potential confounding from age, gender and employment in wood