

Poster Presentation

Disease Surveillance

0404 SURVEILLANCE OF OCCUPATIONAL EYE INJURY THROUGH EMERGENCY SERVICES: TWO-YEAR EXPERIENCES IN A MEDICAL CENTRE OF TAIWAN

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Ocular trauma in the workplace is a worldwide cause of visual morbidity, but is largely preventable. We established a pilot surveillance system of occupational eye injuries at emergency service of National Cheng Kung University Hospital (NCKUH) from Feb 2015 to Feb 2017. During the study period, 114 events of occupational eye injuries were collected with 22 patients further hospitalised. Among them, 3 cases of severe ocular trauma were accompanied with other injuries resulting in an Injury Severity Score of more than 16. Foreign body injury (28%, n=32) and chemical burn (21%, n=24) were the most frequent eye injuries. Notably, 12 cases (10.5%) eyeball rupture were identified. The total medical costs charged through the NCKUH were about 66,000 USD for these ocular trauma patients, counting emergency and hospitalisation fees within 90 days after the first encounter. Eyeball ruptures accounted for 57.5% of the total medical charges. Only about 18% of occupational ocular trauma cases were reported to the National Labour Insurance and would usually be compensated. This study highlights the urgent needs of comprehensive compulsory regulations of recognition and report, compensation, and prevention and control of occupational eye injuries in the workplace of Taiwan.

Oral Presentation

Occupational Medicine (SCOM/Modernet)

0405 PREDICTING THE IMPACT OF THE EU VIBRATION DIRECTIVE ON THE PREVALENCE OF VIBRATION WHITE FINGER (VWF), CARPAL TUNNEL SYNDROME (CTS) AND SENSORINEURAL SYMPTOMS ACROSS EUROPE

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Objectives EU directives can lend themselves to evaluation through natural experiments because of the freedom regarding their implementation within individual countries. Natural experiments may be criticised because of the lack of direct casual evidence for a relationship between the intervention and the exposure or disease outcome. Such experimental designs could be strengthened by an a priori estimate of the impact of an intervention. Here we aim to predict the impact

of EU Directive 2002/44/EC on VWF, CTS and sensorineural symptoms (HAVS).

Methods Previously we described the development of a Markov chain Monte Carlo accelerated failure time model to predict the incidence and prevalence of HAVS. The model was developed using longitudinal data from Italian workers and validated using published data for Swedish and UK workers, and compensation data from the Czech Republic. For the next step we have used the exposure data from the Eurofound European Working Conditions Survey from 2000 to 2015 and population level demographic data to predict the impact of the directive on HAVS in Europe.

Results The model predicted that a reduction in vibration exposure to 5 m/s² (i.e. complete success of the directive) would result in a reduction in lifetime prevalence of VWF of around 25% in the UK. Predictions of the variation in impact according to differing reductions in exposure and across different age groups will be presented for the UK and other countries.

Conclusion Future work will compare these estimates of the impact of the directive using routinely collected data in European countries.

Poster Presentation

Cancer

0406 ANALYSIS OF INFECTIOUS DISEASE PREVALENCE AMONG SEMICONDUCTOR MANUFACTURING WORKERS WITH NON-HODGKIN'S LYMPHOMA

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Introduction The Occupational Safety and Health Research Institute (OSHRI) established a cohort of former and current workers in six semiconductor-manufacturing companies in South Korea, to determine the incidence of occupational cancer. This study compared the prevalence and incidence of general illnesses between patients with non-Hodgkin lymphoma (NHL) and a control group.

Research Methods After identifying 43 workers with NHL, OSHRI established a sex- and age-matched control group. The NHL cohort and control groups were compared for the prevalence of infectious diseases before and after diagnosis. The prevalence of infectious diseases was based on diagnostic data collected from National Health Insurance information. Disease names were determined by the ICD-10 disease code.

Outcomes Prior to the diagnosis of NHL, there was no significant difference in the prevalence of bacterial and viral diseases between the groups. However, following the diagnosis of NHL, the prevalence rates of viral and bacterial infections were significantly higher in the NHL group. Significant differences were found in the prevalence of herpes zoster, cytomegalovirus, and tuberculosis.

Conclusion Prior to the diagnosis of NHL, there were no significant underlying diseases in the NHL cohort group when compared to the control group. Therefore, we concluded there is no relationship between underlying infectious disease and NHL development. However, the probability of contracting opportunistic infections was higher in the NHL group