during other times may not increase risk. *Hypothesis 2:* A long, slow pattern of increases in IOP from regular heavy lifting accelerates vitreous liquefaction, so that retinal tears are more likely to occur. Under this hypothesis, changes in IOP don't cause tears directly, but instead a long-term pattern of "peaks" in IOP may increase the chances of an RD. If this is correct, risk of RD would be associated with a longer history of heavy lifting.

Poster Presentation

Burden of Disease

0128

THE ECONOMIC BURDEN OF OCCUPATIONAL HEAT ILLNESSES IN ADELAIDE, SOUTH AUSTRALIA, 2001-2015

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10.1136/oemed-2017-104636.100

Objectives This study aims to investigate the characteristics of economic costs of occupational heat illnesses in South Australia, and to examine the association between high temperatures and occupational heat illness related economic costs.

Methods Workers' compensation claim data were obtained from SafeWork South Australia for the period of 2001–2015. Weather data were collected from the Bureau of Meteorology. The association between heat illness and economic loss was estimated by time-series analysis with generalized estimating equation models after controlling for day of week and long-term trends.

Results There were 306 occupational heat illness claims during the study period, resulting in medical expenditure of \$1,795,640 and 2,787 days of time loss. Male workers accounted for 87.8% and 82.5% of medical costs and time-lost days, respectively. The mining industry had the greatest proportion of medical expenditure (56.0%) and days off work due to heat illnesses (67.4%), followed by "community services" and "agriculture, forestry and fishing". There was a positive relationship between maximum temperature (Tmax), medical expenditure, and days of time lost. A 1°C increase of Tmax was associated with 18.5% (IRR 1.185, 95% CI 1.071–1.312) increase in medical expenditure and 34.6% (IRR 1.346, 95% CI 1.128–1.534) increase in time-lost days due to occupational heat illnesses, respectively.

Conclusions Occupational heat related-illnesses represent a significant economic cost, and interventions in South Australia should be targeted at the mining industry.

Poster Presentation

Musculoskeletal

0129

MUSCULOSKELETAL PAIN AND WORKSTATION ASSESSMENTS AMONG OFFICE WORKERS IN A PUBLIC UNIVERSITY IN COSTA RICA

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10.1136/oemed-2017-104636.101

Objectives To determine the prevalence of musculoskeletal pain (MSP) and identify workstation factors that might

influence pain among office worker in a public university in Costa Rica.

Methods A sample of office workers (n=162, 13% of population) were selected at the main campus of the Costa Rica Institute of Technology. Information on MSP was collected using the Cornell Musculoskeletal Questionnaire. Collected data on workstations using OSHA Computer Evaluation Checklist. We used descriptive statistics to analyse data, prevalence was summarised in frequencies and percentages using Stata v13.

Results Prevalence of MSP was 88.2%, pain was higher among women (51.2%) than men (37.0%) and lower prevalence (17.9%) among older workers (more than 51 years of age). Musculoskeletal pain was most common in the lower back (68.3%), followed by neck (60.4%), upper back (51.8%) and wrist (24.4%). Main findings regarding workstation and postural problems were wrists not straight (63.6%), wrists/hands rest on sharp or hard edges (54.7%), glare present (51.7%), platform is not large enough to hold a keyboard and a mouse (50.8%), head, neck, and trunk do not face forward (42.1%), top of the screen is not at eye level (38.5%).

Conclusion Prevalence of MSP was common among office workers, but with a higher prevalence among women and younger people. High prevalence of pain highlights the importance of workplace interventions to reduce the influence on discomfort due to workstation design. In addition, office ergonomics training to all office worker could raise awareness and reduce risk factors due to behavioural problems.

Oral Presentation

Respiratory

0130

INCIDENCE OF WORK-RELATED RESPIRATORY ILL HEALTH ATTRIBUTED TO CLEANING AGENTS: OCCUPATIONAL AND CHEMICAL DETERMINANTS

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10.1136/oemed-2017-104636.102

Introduction Exposure to cleaning products has been shown to be associated with adverse respiratory outcomes. The aim of this study was to investigate the medically reported incidence and occupational determinants of work-related respiratory disorders attributed to cleaning agents, and to explore the role of a chemical taxonomy and 'Quantitative Structure Activity Relationships' (QSAR) in categorising hazards and their mechanisms.

Methods Cases of work-related respiratory disease attributed to cleaning agents were identified and extracted from SWORD (Surveillance of Work-Related and Occupational Respiratory Disease), 1989–2015. Incidence, trends in incidence and incidence rate ratios (IRRs) by occupation were investigated. Agents were classified by chemical type and QSAR hazard indices were determined on selected typical organic chemicals.

Results A reported 667 cases (6% of the non-asbestos related cases) were attributed to cleaning agents. Diagnoses were predominantly asthma (58%) and inhalation accidents (29%). The agents were classified in ten specific chemical categories with the most frequently reported being aldehydes (33%) and chlorine/releasers (25%). An overall decrease in incidence of