

exposed employees. Furthermore, given that many asbestosis cases progress to lung cancers, the amount of compensation solely from the asbestosis disability appears inadequate. It is suggested that the Indonesian Manpower Ministry review the compensation system to include follow-up and screening for malignancies, their treatment, and related disabilities.

428

RESPIRABLE CRYSTALLINE SILICA (RCS) EXPOSURE MONITORING, HEALTH SURVEILLANCE AND HAZARD COMMUNICATION IN PREVENTING SILICOSIS AMONG STONE WORKERS

¹Mahinda Seneviratne*, ²Kiran Shankar, ¹Phillip Cantrell, ¹Aklesh Nand. ¹Hygiene and Toxicology, SafeWork NSW, Baulkham Hills, NSW, Australia; ²Chemical Analysis Branch, TestSafe Australia, Thornleigh, NSW, Australia

10.1136/oemed-2018-ICOHabstracts.1256

Introduction Exposure to respirable crystalline silica (RCS) causes the serious lung disease silicosis among many workers globally. There was renewed attention to silicosis when new cases were reported among workers involved in the use of engineered stone in bench top manufacturing.

Methods A regulatory verification program was conducted in the State of New South Wales in Australia to investigate exposure of stone workers to RCS, compliance with health surveillance requirements and to improve communication of the health hazards of RCS to poorly informed workers. Airborne RCS exposures were measured in the workers' breathing zones using cyclone sampling heads for particle size selection. X-ray diffraction (XRD) analysis was performed to assess the silica content of the respirable dust. Compliance with national Work Health and Safety Regulations on health monitoring for RCS exposure, which include annual chest x-rays, were verified at each workplace. Hazard information was developed in consultation with workers and small group education conducted to improve their awareness and knowledge on silica hazards.

Result The Australian Workplace Exposure Standard (WES) of 0.1 mg/m³ for RCS was exceeded in many personal air samples. Workers who had worked in the industry for many years had not undergone a complete health monitoring including chest x-ray and spirometry.

Discussion The WES for RCS is being reviewed and lowered to 0.025 mg/m³ in some countries whilst some industries raise concerns on whether they can practicably achieve this limit. The reliance on chest x-rays and spirometry in the early detection of silicosis has also been queried by numerous case studies and by the Australian inquiry into coal worker pneumoconiosis.

We report our findings and explore whether technological changes result in high RCS exposures and a re-emergence of silicosis among poorly informed workforces. Developing professional collaboration among different disciplines to prevent this deadly disease will be discussed.

433

GB SILICOSIS CASES FOLLOWING A RECENT GUIDANCE UPDATE

¹David Fishwick*, ²Sue Matthews, ²Mohammed Kamil, ¹Chris Barber. ¹Centre for Workplace Health, HSE, Buxton, Derbyshire, UK; ²Department of Radiology, Northern General Hospital, STH NHS Foundation trust, Sheffield, UK

10.1136/oemed-2018-ICOHabstracts.1257

Introduction Silicosis still occurs globally as a consequence of exposure to respirable crystalline silica (RCS). The Health and Safety Executive (HSE) regulates the workplace in Great Britain, and recently updated its silica based guidance relating to health surveillance. We report our early experience dealing with cases referred to our clinical service following this update.

Methods Our Occupational Lung Disease service runs a weekly multidisciplinary team (MDT) meeting. Following the relatively recent updated silica guidance issued by HSE, our clinical service offered to accept referrals of workers exposed to RCS who have undergone health surveillance at work. This would normally have consisted of lung function testing and a chest X Ray (CXR). A consultant respiratory physician and a radiologist, the latter reading to International Labour Organisation (ILO) radiology standards, discussed each case referred to the service at the MDT.

Result To date, 36 workers have been referred with potentially abnormal radiology. The mean age of this group of workers was 55 years (range 23–75), 8 were female. Twenty workers (56%), with a mean age of 55 years (range 35–75) and a mean duration of RCS exposure of 25.2 years (range 9–50), had an ILO grade recorded for the presence of small opacities on their CXR which were thought to be potentially consistent with silicosis. A further 11 were identified to have an incidental, not silica related, radiological abnormality and 5 had normal radiology.

Discussion Since HSE has refreshed and updated its silica based workplace guidance, workers have been identified with potentially abnormal chest x rays. Of those referred to us, a substantial proportion was identified to have small opacities consistent with silicosis. Workplaces must continue to risk assess all tasks potentially associated with RCS exposure, and subsequently intervene to reduce these exposures.

434

FARMER'S LUNG DISEASE IN A COHORT OF BRITISH AGRICULTURAL WORKERS

Chris Barber*, David Fishwick, Anne-Helen Harding. Centre for Workplace Health, HSE, Buxton, Derbyshire, UK

10.1136/oemed-2018-ICOHabstracts.1258

Introduction Farmer's Lung Disease (FLD) is the oldest recognised form of occupational hypersensitivity pneumonitis (OHP) and remains one of the most commonly reported causes in Europe. The aim of this study was to provide novel data on the prevalence and demographic risk factors of FLD in a large cohort of British farm workers.

Methods Farmers were identified from the baseline survey of the PIPAH cohort (Prospective Investigation of Pesticide Applicators' Health). The demographics of workers, who self-reported a doctor diagnosis of FLD, were compared to the remainder of the cohort.

Result Questionnaire data was available for 5115 current or former farmers, representing a cumulative total of over 210,000 years of farming practice. 26 farmers self-reported a diagnosis of FLD, representing a cohort prevalence of ~5 per 1000. Those with FLD were all male, and were older, more likely to be involved in animal production and less likely to be involved in crop production only than those without FLD. Those with and without FLD did not differ in respect of years lived or worked on a farm, or their smoking status.