

row scanners are mandatory. The evaluation algorithm follows the recommendation of the National Comprehensive Cancer Network (NCCN Guideline) which specifies interventions according to nodule size. Suspicious findings lead to individual assessment by a pulmonologist and could imply CT control after several weeks, PET imaging, or immediate biopsy. Clinical workup and treatment for malignancies follow the respective guidelines.

**Conclusion** In Germany, formerly asbestos-exposed insured individuals have the statutory right to receive 'follow-up occupational medical examinations' (secondary prevention). Due to the results of the NLST-Study, the DGUV decided to offer an annual low-dose CT to a highly selected population of former asbestos-exposed workers and workers with asbestos-induced recognised occupational disease. Hereby, we present results of this early detection program.

#### 744 ASBESTOS RELATED OCCUPATIONAL DISEASES – LEGISLATIVE CHANGES AND INCIDENCE DIFFERENCES IN CROATIA

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**Introduction** The aim of this study was to identify differences in the occurrence of asbestos-related occupational diseases in relation to the changes in Croatian legislation regarding health protection, surveillance and compensation entitlement due to occupational exposure to asbestos. Aforementioned changes occurred in the period between 2007 and 2008 and are considered as a significant step forward in registering asbestos-related occupational diseases.

**Methods** Annual epidemiological and demographic data on newly diagnosed patients with asbestos related diseases have been retrieved from Register of Asbestos Related Occupational Diseases of the Croatian Institute for Health Protection and Safety at Work for the period between 2009 and 2016. Annual Croatian Health Service Yearbooks of the Croatian National Institute for Public Health have been used for obtaining data between 2000 and 2008. Descriptive statistical analysis has been performed.

**Results** Between 2009 and 2016 1356 asbestos-related occupational diseases have been diagnosed with peak occurrence in 2011, following: 52% pleural plaques with asbestosis (n=705), 22.27% pleural plaques (n=302), 20.13% pulmonary asbestosis (n=273), 4.28% mesothelioma (n=58) and 1.33% other respiratory malignant neoplasms (n=18). Between 2000 and 2008 104 asbestos-related occupational diseases have been reported (nearly 13 times less compared to the post-legislative period).

**Discussion** Changes in legislation have, undoubtedly, led to significant differences in the occurrence of occupational asbestos-related diseases. Reasons for such differences might be partially due to workers' inclination to compensation and indemnification after being diagnosed with occupational disease. However, a relatively late onset of a complete ban of asbestos-engaged work in Croatia is also considered to be a major contributing factor for present results. Considering relatively late peak of occurrence in 2011, it is fair to assume that a significant number of asbestos-related diseases are yet to be reported. Hence, a further need for continuous health

surveillance of workers exposed to asbestos cannot be accentuated enough.

#### 1128 SILICA EXPOSURE AND WORK-RELATEDNESS EVALUATION FOR OCCUPATIONAL CANCER IN KOREA

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**Introduction** Crystalline silica has been classified as a definite carcinogen (Group 1) causing lung cancer by the International Agency for Research on Cancer (IARC). In Korea, crystalline silica has been the most common causal agent for workers to apply to the Korea Workers' Compensation and Welfare Service (KWCWS).

**Methods** We used KWCWS data to evaluate workers' crystalline silica exposure levels according to their occupations and industries, and reviewed research papers describing the dose-response relationship between cumulative exposure levels and lung cancer incidence. In addition, we reviewed lung cancer cases accepted by the KWCWS, and suggest new criteria for defining occupational cancer caused by crystalline silica in Korea.

**Results** A review of 120 cases of occupational lung cancer confirmed through an epidemiological survey of the KWCWS since 2007 revealed that 45 cases (37.5%) involved miners. Most of the coincidental exposures (72.5%) involved asbestos, diesel exhaust particles, radon, hexavalent chromium, and so on. From the carcinogenic exposure to the onset of the disease, there was no case of less than 10 years, and the lag time was more than 40 years in 40% of the cases. Among the patients whose cases were approved, 19.2% had pneumoconiosis, while many cases were approved without pneumoconiosis. A high level of exposure was found in the construction industry, and significant exposures were also confirmed among miners and foundry workers. Stone quarrying and stone laying were also found to expose workers to high concentrations of crystalline silica.

**Discussion** Rather than confining to miners, we propose recognising occupational lung cancer whenever workers with pneumoconiosis develop lung cancer, regardless of their industry. Coincidental exposure and lag time should also be considered in evaluations of work-relatedness.

#### 677 AN ANALYSIS OF LATENT PERIOD AND SURVIVAL FACTORS OF KOREAN PATIENTS WITH MALIGNANT MESOTHELIOMA

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**Introduction** Malignant mesothelioma is an aggressive tumour occurring in mesothelioma cells of pleura and peritoneum. About 80% of malignant mesothelioma cases are known to be caused by asbestos. Malignant mesothelioma is known to have a very poor prognosis with an average survival period of about 12 months. The number of patients of malignant