

essential but still emerging workforce, not only in high-income countries but also worldwide.

RF-405 OCCUPATIONAL SKIN DISEASE SURVEILLANCE USING A CLINICAL PATCH TEST DATABASE OVER TIME: THE RESULTS OF THE NORTH AMERICAN CONTACT DERMATITIS GROUP: 2001–2016.

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Introduction Clinical databases may provide useful information on occupational diseases. Occupational skin diseases are common. Patch testing is performed as part of the diagnostic process for contact dermatitis. There are several large, pooled patch test databases that track results over time. The North American Contact Dermatitis Group is a group of dermatologists in the United States and Canada who use standardized methods for patch testing and reporting and undertake regular analysis of their pooled results.

Objectives Using NACDG data, to examine the diagnoses, common workplace allergens and trends over time for work-related allergens.

Methods Data from North American Contact Dermatitis Group (NACDG) datasets from 2001–2016 were analyzed to determine the frequency of occupationally relevant allergic patch test reactions to a screening tray of allergens and examine trends over time. NACDG members record diagnosis, work-relatedness and industry and occupation using the United States 1990 Census Bureau codes. Descriptive analysis of workers with occupational skin disease was performed using standard statistical tests; logistic regression was used to examine trends over time.

Results Of 38,614 patients tested, 4471 (11.6%) had occupationally-related skin disease; 70.5% of individuals with occupationally-related skin disease had a final diagnosis of allergic contact dermatitis. Fifty one percent were male and the median age was 43. The most common occupationally related agents were rubber accelerators (carba mix, thiuram mix, diphenylguanidine), Bisphenol A epoxy resin, formaldehyde, methylisothiazolinone and metals (nickel sulfate hexahydrate and potassium dichromate). Over the 16 year period there was a significant increase in occupationally relevant responses to carba mix and methylchloroisothiazolinone/methylisothiazolinone and a decrease in 2-mercaptobenzothiazole.

Conclusion Ongoing analysis of pooled patch test databases provides information about the common work-related allergens that can be used to inform prevention activities. Examining trends over time can identify particular allergens for more careful assessment of exposures and help target prevention efforts.

RF-412 SURVEILLANCE OF COVID-19 CASES AMONG MEDICAL LABORATORY STAFF IN SOUTH AFRICA

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Introduction Medical laboratory workers are exposed to COVID-19 in the community and through their interaction with samples received for testing. The National Health Laboratory service in South Africa serves 80% of the population providing medical tests. Information on all staff cases was collected in the Occupational Health and Safety Information System.

Methods Surveillance data from the OHASIS system was extracted from 01 April 2020–30 March 2021. All staff with a laboratory-confirmed positive test for SARS-COVID-19 were included in the study. NHLS staff had increased access to testing compared to the general public. An epidemic curve was plotted and compared to that for the country along with descriptive statistics.

Results A high proportion of NHLS staff tested positive for SARS Cov 2, 25.7%. This varied across occupation groups with more educated occupations such as pathologists at less risk of COVID-19 compared to messengers and laboratory clerks. The epidemic curve for the facility peaked higher in the first wave compared to the rest of the country.

Conclusion The prevalence found in the laboratory staff may be a proxy for the country prevalence of COVID-19 if more access to testing had been available. The lower rate of positive cases in more educated staff may indicate the role of education in adherence to COVID-19 prevention measures.

RF-453 SCORPION STING IN DOMESTIC SERVICE WORKERS (HOMEMAKERS) IN BRAZIL: AN EPIDEMIOLOGICAL APPROACH

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Introduction Scorpion stings (scorpionism) have common occurrence in home areas, which may predispose workers who perform domestic services, such as homemakers.

Objective To describe the incidence and clinical-epidemiological characteristics of cases of scorpionism in homemakers notified in Brazil, 2007–2019.

Methods Incident case study, individual, with 84,538 homemakers stung by scorpion, with economically active age (18–65 years), occurred in Brazil from 2007–2019 and notified to the National System of Notifiable Diseases (SINAN). Cumulative incidence coefficients of scorpionism were estimated specifically for the female population occupied in domestic services. Demographic, socioeconomic and clinical-epidemiological characteristics were also investigated, using descriptive analysis.

Results The cumulative incidence of scorpionism was 110.9 cases/100,000 homemakers, 2007–2019, in Brazil. This scorpionism incidence in homemakers increased 349.7% in this period (48.7/100,000 homemakers to 219.0/100,000 homemakers) and was higher in the Brazilian Northeast (195.6/100,000 homemakers) and in the states of Alagoas (851.4 cases/100,000 homemakers), followed by Rio Grande do Norte (488.4/100,000 homemakers). Considering sociodemographic characteristics, the average age was 41 years old and occurred predominantly among workers with low education up to a maximum of elementary school (46.8%), brown color (55.0%), who were injured in an