Results Our study has included 32 patients all diagnosed with asthma. The average age was 44 ± 9 years [30–61]. Sex ratio was 1.1. Family history of atopy was found in 12% of patients and personal atopy in 37% of cases. Symptoms were dyspnea (87%), cough and wheezing (50%). Forty seven percent of asthma was work-induced, 25% work-aggravated and 28% non-work-induced. Work-induced asthma was found in textile sector (30%) and the agri-food industry (13%). Occupational incriminated agents were wheat flour, enzymes, vegetable, textile dusts, isocyanate, latex, cork dust, penicillin and its salts, and asphalt fumes. One patient with occupational asthma was judged to be permanently unfit. One patient with aggravated asthma was judged to be permanently unfit for work and the rest benefited from a workplace adaptation and increased protective measures.

Conclusion Work related asthma affect adults in many activity sectors exposing to vegetable oil, animal allergens or chemical substances. Fitness decision is sometimes equal to dismissal in other terms to an economic, health, social and psychologic burden.

**COVID 19**

**P-83 CHANGES TO INFECTION PREVENTION AND CONTROL MEASURES USED BY CANADIAN PARAMEDICS IN RESPONSE TO COVID-19**

1Christopher MacDonald, 2Paul A Demers, 3David M Goldfarb, 4David O Neill, 5Jocelyn A Sigley, 6Nechelle Wall, 7Tracy L Kirkham. Dalla Lana School of Public Health, University of Toronto, Ontario, Canada; Occupational Cancer Research Centre, Ontario Health, Canada; Occupational Health and Safety Branch, Health Canada; 2Department of Medicine and the Centre for Health Evaluation and Outcomes Sciences, University of British Columbia, British Columbia, Canada; 3Department of Occupational Health, British Columbia Centre for Disease Control, British Columbia, Canada; 4Department of Pathology and Laboratory Medicine and British Columbia Children’s Hospital Research Institute, University of British Columbia, British Columbia, Canada; 5British Columbia Emergency Health Services, British Columbia, Canada

Introduction Canadian Paramedic services modified infection prevention and control (IPAC) practices in response to COVID-19. These changes may affect risk of exposure to infectious disease agents and can be used to inform future IPAC practices. We characterized COVID-19-related IPAC changes, and can be used to inform future prevention and control (IPAC) practices in response to COVID-19, including the timing of changes place prior to COVID-19, and which were modified in response to COVID-19. Differences in proportions across provinces, community practice settings, and professional regulation status were reported (p < .05) for hand hygiene, PPE training, screening of patients, face shields, and various respirator types.

Conclusion Canadian paramedic services were quick to modify available IPAC measures. However, these changes were variable across provinces, regulation status, and setting for specific IPAC measures. Inconsistent IPAC measures across jurisdictions may contribute to variable risk of infectious disease exposure. An evidence-informed and nationally coordinated approach may provide more equitable exposure risk mitigation for paramedic workers.

**Biomarkers of exposure or effect**

**P-98 ENVIRONMENTAL CONTAMINATION WITH AND INTERNAL OCCUPATIONAL EXPOSURE TO ANTI-NEOPLASTIC AGENTS AND EVALUATION OF GENOTOXIC AND EPIGENETIC EFFECTS THEREOF**

1Eline Verscheure, 2Matteo Creta, 3Dorian Vanneste, 4Srivinasa Adithiya, 5Jeroen Vanoirbeek, 6Meziane Zakia, 7Sael Abdessalam, 8Robin Lebegge, 9Katien Poels, 10Radu-Corneliu Duca, 11Manosij Ghosh, 12Lode Godderis, 13Jeroen Vanoirbeek, 14Meziane Zakia, 15Sael Abdessalam, 16Robin Lebegge, 17Katien Poels, 18Radu-Corneliu Duca, 19Manosij Ghosh, 20Lode Godderis, 21Centre for Environment and Health, Department of Public Health and Primary Care, KU Leuven, Belgium; 22Unit Environmental Hygiene and Human Biological Monitoring, Department of Health Protection, Laboratoire National de Santé (LNS), Dudelange, Luxembourg; 23Centre Hospitalier universitaire, Service Médecine du Travail, Université Abou Bekr Belkaid Tlemcen, Tlemcen, Algeria; 24Faculty of Medicine, TOXICOMED Research Laboratory, Université Abou Bekr Belkaid Tlemcen, Tlemcen, Algeria

Introduction It is important to monitor unintended exposure to antineoplastic drugs (ANDs) and potential effects occurring after exposure. Our aims were to develop a method sensitive enough to measure trace levels of ANDs in urine, evaluate environmental contamination and occupational exposure to ANDs. Finally, we aimed to study the link between exposure and genotoxic/epigenetic effects.

Materials and Methods UPLC-UniSpray-MS/MS was used for quantification of ANDs in urine (n = 83), while UPLC-ESI-MS/MS was used for analysis of wipe samples (n = 62) collected in 6 different departments from a university hospital. Novum simplified liquid cartridges were used for extraction of urine samples, liquid extraction was used for wipe samples. The link between exposure and effects was studied through a systematic review.

Results and Conclusions A method for urine analysis was fully developed and validated with LLOQs of 0.05 ng/mL, 0.3 ng/mL and 0.7 ng/mL for cyclophosphamide, ifosfamide and paclitaxel, respectively. All wipe samples and 17 urine samples had quantifiable concentrations of at least one compound. Concentrations in urine ranged from <LOQ-15.80 ng/mL and in wipes from <LOQ-208.85 ng/cm². The highest levels were observed in the oncology department. Despite the numerous guidelines, healthcare workers are thus still exposed to ANDs, therefore, actions should be taken to limit the presence of ANDs in the work environment. In the systematic review, we confirmed the possibility of genotoxic damage after
occupational exposure to ANDs. However, we revealed a lack of data on biomonitoring, epigenetic effects, exposure-effect link. Therefore, in the next phase, we will generate valuable information on the concentration-effect link.

**Ethical approval** ‘Conseil d’Ethique et de Déontologie de l’Université de Tlemcen’ (15/12/2016).

**Funding** Industrieel Onderzoeksfonds KU Leuven Program: C3 project: (C32/15/029) Occupational dermal exposure to cytostatics (3M170331). The Research Foundation – Flanders (1SD2322N).

The authors declare no conflict of interest.

**Semi-plenary symposium**

**SP-10 ORGANIC DUST AND AEROSOL EXPOSURE IN SERICULTURE WORKERS – IS OCCUPATIONAL HEALTH IN COTTAGE INDUSTRIES ADDRESSED?**

Sashikala Chandrasekar. ICOH Scientific Committee on Rural Health

10.1136/OEM-2023-EPICOH.256

Sericulture and silk production is an agro-cottage industry. Workers are exposed to aerosols when silkworm cocoons are placed in hot water to dissolve ‘sericin’ from outer layer of cocoons before silk reeling. Workers employed in areas where cocoons are stored and in cocoon trading centres are exposed to epithelial dust.

Previous studies showed prevalence of asthma among sericulture workers. It was found that some workers develop sensitization to silkworm allergens over a period. Allergic bronchitis was seen in people residing near filature units. Sericulture workers are at risk of developing asthma and continued exposure to allergens can progress to chronic obstructive pulmonary disease in some workers. People living near filature units are also at risk of developing sensitisation to silkworm allergens.

Workers in farms, handling mulberry leaves for silkworm rearing centres and in yarn dyeing units are at risk of developing asthma as they are exposed to pesticides, disinfectants, and chemical dyes. Mechanisation to prevent manual handling of cocoons and barriers for preventing aerosol exposure is recommended. As small cottage industries with family-owned filature units, it is difficult to implement these measures due to the cost involved. Awareness programmes on prevention, personal protective equipment and early treatment is required. Workers do not seek medical aid early and are not aware of the consequences.

It is imperative that Occupational Safety and Health of workers in cottage industries should be addressed, and occupational hazards must be prevented. The environmental effects caused by these industries in surrounding rural population should also be addressed.