

**Sp17-4****The Burden of COVID-19 in Health Workers**Albert Nienhaus<sup>1</sup> and Claudia Westermann<sup>2</sup><sup>1</sup> Institute for Health Service Research in Dermatology and Nursing, University Clinics Hamburg Eppendorf, Hamburg, Germany,<sup>2</sup> Department for Occupational Medicine, Hazardous Substances and Health Sciences, Statutory Accident Insurance and Prevention in the Health and Welfare Services, Hamburg, Germany

**Introduction:** Health Workers (HW) have an increased risk for SARS-CoV-2 infection. With effective vaccines available since the end of 2020 and most HW in Germany vaccinated by now, this burden is mitigated but does still exist. In particular, high hygiene standards need to remain implemented to protect HW and patients. The increased use of hand washing, disinfections, and personal protective equipment (PPE) might increase the risk for skin diseases in HW. For this presentation, we analysed claims for occupational diseases (OD) concerning COVID-19 and skin diseases and we report results of a survey on skin irritation because of PPE during the pandemic in HW in Germany.

**Materials and Methods:** The BGW is a compensation board for work related diseases in HW. Claims of ODs of the BGW concerning SARS-CoV-2 infections were analysed since the beginning of the pandemic in March 2020. An online survey concerning skins irritation was carried out with the support of a professional nursing association. The survey was completed by 1.500 nurses or 10 % of those invited.

**Results:** About 80.000 COVID-19 cases are confirmed as OD. About 100 HW died because of COVID-19 and about 1.500 were hospitalized or need long-term rehabilitation. The number of ODs because of skin diseases did not increase during the pandemic. However, 280 claims because of skin irritations of the face or head were filled. Irritation of the skin because of wearing masks was reported by 60 % of the survey participants.

**Conclusions:** The burden of COVID-19 in HW is high. Protection of HW is important but might cause skin irritation, which also need to be taken care of.

**Special Session 18 Strategies to address the increasing burden of Occupational skin cancer**

Chair: Patricia Weinert

**Session introduction**

Solar Radiation (SR) is associated to various skin cancers: actinic keratosis (AK), squamous cell carcinoma (SCC) basal cell carcinoma (BCC), and malignant melanoma (MM). Occupational activity is one of the most relevant factors influencing SR exposure. Alone in Europe about 14.5 million outdoor workers (OW) are exposed to SR for at least 75 % of their working time. Primary prevention is thus essential to avoid longer-term costs and decrease the disease burden. In professions with increased sun exposure, specific measures of awareness, protection and systematic dermatological screening provide value for money in terms of a healthy work environment.

**Sp18-1****UV radiation exposure in occupation and leisure time - detailed knowledge for holistic prevention**

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**Introduction:** We are exposed to solar ultraviolet radiation (UVR) every day, during work and leisure time. There is little knowledge about the level of irradiance, both in occupation and leisure time. In an ageing society, along with an ideal of a brown skin, non-melanoma skin cancer incidence rates rapidly increase.

**Materials and Methods:** For risk assessment and deduction of protective measures, measured data serve best. Regarding solar UVR exposure, long-term personal dosimetry measurements has been conducted. Since 2014, about 1000 test persons delivered data points representing about 45000 days of high quality data in more than 250 occupational settings. Since 2019, leisure time data from 600 test persons has been added in virtually all relevant activities. **Results:** The irradiance values for the occupations cover a very wide range. Going deeper into the occupational activities, prevention-relevant information could be obtained. With the data, a new definition of “outdoor workers” has been achieved, as well as prevalence estimates on limit value exceedance. On the basis of the time-use records of the German Federal Statistical Office, it was possible to derive mean values for the population as well as individual lifetime exposures.

**Conclusions:** These data can and are used to support prevention concepts or to decide whether employees are subject to occupational health screening with regard to UV radiation. Ultimately, the correlations found there are a plea for employees to be protected much earlier and better from long-term skin damage in the future. However, UV protection remains a challenge for society as a whole.

**Sp18-2****UV radiation exposure in occupation and leisure time - detailed knowledge for holistic prevention**

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**Introduction:** Solar Ultraviolet radiation (sUVR), classified as a carcinogen agent from IARC, NTP and all major agencies, is the main occupational carcinogenic factor in terms of number of workers exposed worldwide. UVR induced Keratinocytes cancers (KCs) are expected to be the most frequent occupational neoplasms in Caucasian individuals, but their reporting to the workers' compensation authorities is still scant in Italy, as in several Countries.

**Materials and Methods:** The number of KCs and Actinic Keratoses reported to the Italian workers' compensation authority (INAIL) in the period 2012-2020 was collected. Then, the expected number of sUVR related occupational KCs, based on the number of workers exposed in Italy according to CAREX and to the incidence in the

population from the Italian national association of cancers' registries (AIRTUM), was calculated. The results were compared.

**Results/Discussion:** According to our analysis the total number of solar UVR related KCs reported in Italy in the observed period is less than the 10% of the cases expected, showing a large underreporting, but with a trend to an increase of the cases since 2015. A similar problem of underreporting was observed also in other Countries, as in Denmark, while in countries as UK and Germany the number of notifications is significantly higher.

**Conclusions:** Our study shows that occupational KCs are still largely under-reported in Italy. Nevertheless, a trend to an increase in the notification in recent years suggest a raise of the attention to the problem.

### Sp18-3

#### **Disease burden of occupational skin cancer and global Call to Action**

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**Introduction:** Skin cancer is one of the most frequent and by incidence and prevalence fastest growing occupational malignancy. Alone in Europe, more than 14.5 million workers are regularly working outdoors by even  $\geq 75\%$  of their daily working hrs. Around the globe, there is a lack of legislative protection to ensure adequate prevention measures, early diagnosis and effective treatment as well as compensation, adding up to substantial health inequalities.

**Materials and Methods:** Outdoor workers are exposed to an UVR dose at least 2 to 3 times higher than indoor workers and often to daily UVR doses even 5 times above internationally recommended limits as shown unanimously by numerous dosimetric studies.

**Results:** Specific recommendations entailed in a position statement signed by health professionals, patient advocacy groups and worker representatives (SM John et al., Nov. 2020) have been developed to address the unmet needs of NMSC patients, including improved legislation for outdoor workers, accessibility for regular screenings and earlier treatments; standardised registration of NMSC, reporting of occupational NMSC (including actinic keratosis) to population based cancer registries; enhancing collaboration between doctors, employers and patient groups to promote skin cancer prevention.

**Conclusions:** Governments across the world are called upon to take action and work towards the implementation of these recommendations. A coordinated response is needed to ensure that outdoor workers are better informed as well as motivated, and thus better protected from major skin cancer risk factors such as the sun.

#### **Special Session 19 Sharing Solutions in Occupational Health: Best Practices from LMIC countries**

Chair: Diana Gagliardi

##### **Session introduction**

OSH professionals in LMIC often experience difficulties in delivering good OSH at the workplace due to limited access to information, tools and good practices. Nevertheless many tools and good

practices already exist that can be adapted and adopted also in LMIC. What is really needed is to improve connections among OSH professionals and to support them in sharing their practical experience and knowledge and in making available practices and tools that proved to be effective.

Participants will learn about available practices and tools from experts representing different regions in the world, who will share experiences and present good practices that resulted to be effective in improving occupational health at the workplace

### Sp19-1

#### **Gamification and benchmarking to achieve occupational health at workplace - Tools and good practices to improve OSH at the workplace, examples from India**

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**Introduction:** Occupational health has a strong focus on prevention. Basic occupational health services are aimed at a) protection of health at work, b) promotion of health, wellbeing, work ability and c) prevention of occupational diseases and accidents. These can be achieved by involving various stake holders in identification of health risks, reviewing work practices and taking preventive actions at the workplace.

**Materials and Methods:** Author has worked in multiple organizations in India and was involved in the implementation of health and safety programs to improve workplace health, lifestyle health factors and mental health. Employees at the ground level suggested and implemented workplace changes to reduce health risks. Introducing team spirit, gamification and adding fun element to personal and occupational health initiatives helped achieve the results.

**Results:** Outcome reduced the health and safety risks and also added to the bottom line with significant financial savings. The process was replicated in various units & corporations with positive results. There are multiple examples exhibiting the improvement of processes and reduction of health risks in both work environment and personal health. Sustainability was achieved in many initiatives. Occupational health department played the role of facilitator. **Conclusions:** Visible commitment of top management, empowerment of line managers, recognition of employees, involvement of all levels of workforce, change through people-oriented projects were common elements across organizations and units. Gamification and benchmarking raised the level of engagement and overall gains

### Sp19-2

#### **Participatory approaches to improving safety and health in small and informal economy workplace in South Asia**

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**Introduction:** More than 80% of workers in South Asia are engaged in informal employment (ILO, 2018). Occupational health services seldom reach them and they need practical support.