Materials and Methods A longitudinal cohort study was carried out between July 2020 and July 2022 in a large Italian hospital. At T1 (July 2020-July 2021), 990 HCWs took part in the study. For each subject, we administered a set of scales General Health Questionnaire (GHQ-12), Impact of Event Scale (IES-R), General Anxiety Disorder (GAD-7). The same set was re-administered at T2 (July 2021-July 2022). We performed McNemar’s test to measure potential changes in symptoms trajectories in time and Generalized Estimating Equation (GEE) to evaluate potential risk factors associated with scorings above the cut-off.

Results Three hundred and ten subjects participated to the follow-up evaluation. At T2, percentages of overpassing relevant cut-offs were significantly lower (p<0.001) than T1 for all scales (23% vs 48% for GHQ-12; 11% vs 25% for IES-R; 15% vs 23% for GAD-7). Being a nurse (IES-R OR=3.21, 95%CI 1.92–9.23; GAD-7 OR=2.34, 95%CI 1.25–4.37) or a health assistant (IES-R OR=4.43, 95%CI 1.12–13.6) and having had an infected family member (GHQ-12 OR=1.88, 95% CI 1.01–3.49) resulted as risk factors for psychological distress. Differently from T1, gender and working in COVID-19 area did not show significant associations with psychological symptoms.

Conclusions In the second year of the pandemic, mental health among HCWs improved compared to the previous year and risk factors for psychological distress were slightly different. Longitudinal studies may help occupational health and safety professionals to address various levels of prevention.

Results Of the 1453 participants, 54.2% reported withholding treatment due to fear of exposure (4.3%), as directed by their service (76.5%) or both (19.2%). Participants who withheld treatment reported higher rates of PTSD (M=2.6, p < .01) and depression (M=8.2, p < .001) symptoms than those that did not withhold treatments (MPTSD=2.3; Mdepression=6.4). Reason for withholding treatment and PTSD symptom severity were associated (p<.01). Paramedics who withheld treatment due to fear of exposure were more likely to report probable PTSD symptoms (23.5%) than those who withheld treatments as directed by their service (8.7%) or both (12.2%). Depression symptom severity did not differ by reasons for withholding treatment.

Conclusions Withholding treatment is potentially traumatic and may influence the development of depression and PTSD symptoms. Withholding due to fear of exposure rather than being directed to increased PTSD symptoms. Further research will investigate the mental health impact of withholding treatment and reported reasons for withholding over time.

Bullying/Stress/Violence

P-152 MENTAL HEALTH AND EMPLOYMENT CONSEQUENCES AMONG INFORMAL CAREGIVERS AT WORK A DANISH NATIONWIDE REGISTER-STUDY

Johan Hay Jensen, Ebbe Meulengracht Flachs, Ulrik Gensby, Anne AE Thorup, Hannah Malmim We, Miguel Angel Alba Hidalgo, Karen Abertsson. Department of Occupational and Environmental Medicine, Copenhagen University Hospital – Bispebjerg and Frederiksberg, Copenhagen, Denmark; Work and health, TeamWorkingLife ApS, Copenhagen, Denmark; Child and Adolescent Mental Health Center and Research Unit, Mental Health Center Copenhagen, Copenhagen University Hospital – Gentofte, Copenhagen, Denmark; HMW Health and Communication, Copenhagen, Denmark

Introduction Frequencies of mental health conditions are increasing among children and adolescents. Providing long-term informal care for family members has been associated with detrimental stress-related outcomes. This study examines health and job impacts for working caregivers, who have children with mental disorders.

Material and Methods This Danish nationwide register-study is part of the project ‘Informal caregivers at work’ (www.pjob.dk), phase II, and examines health and job impacts for primary caregivers to children with a mental disorder in the period from 2000 to 2005. We will assess these possible longitudinal associations with follow-up up to 10 years after their child’s incident mental disorder. The exposure group (i.e., primary caregivers to children with a mental disorder) will be matched to a similar reference group (primary caregivers to children without a mental disorder) established from the background working population. We will use data from national and administrative registers merged with psychosocial job-exposure matrices (www.doc-x.dk) to evaluate the mitigating role of specific psychosocial factors on the associations between information caregiving and negative outcomes, including if specific occupational groups carry particular risk. The present study will be conducted between 2023–2024. Communication with target-population representatives and stakeholders

P-149 EFFECTS OF WITH HOLDING TREATMENT ON MENTAL HEALTH IN CANADIAN PARAMEDICS DURING THE COVID-19 PANDEMIC

David O’Neill, Christopher MacDonald, Paul A Demers, Brian Grunau, David M Goldfarb, Timothy Makrides, Tracy L Kirkham, Miguel Angel Alba Hidalgo, Dalia Lana School of Public Health, University of Toronto, Canada; Department of Emergency Medicine and the Centre for Health Evaluation and Outcome Sciences (University of British Columbia); Department of Pathology and Laboratory Medicine (University of British Columbia); British Columbia Emergency Health Services; HMW Health and Communication, Copenhagen, Denmark

Introduction Psychological effects of withholding treatment that could have benefited a patient during a pandemic remain largely unknown. It is also unclear to what extent their reasons for withholding treatment contributed to the subsequent impact on mental health outcomes. Paramedics may have withheld treatments either due to fear of exposure, being directed by their service, or both. As such, the present research aimed to characterize withholding treatment and investigate potential negative mental health outcomes.

Materials and Methods Paramedics from five provinces (Alberta, British Columbia, Manitoba, Ontario, Saskatchewan) working during the COVID-19 pandemic completed online questionnaires assessing withholding treatment (i.e., due to fear of exposure, directed by their service, or both), and mental health outcomes including depression (PHQ-9) and post-traumatic stress (PTSD) symptoms (PC-PTSD-5) as part of the COVID-19 Occupational Risks, Seroprevalence and Immunity among Paramedics (CORSIP) study.
is integrated as Knowledge Transfer and Exchange (KTE) activities throughout the project.

**Results** A communication platform has been established. We expect that the results from the study will highlight informal caregiving to children with mental disorders as a risk factor for stress-related outcomes, including excess mental health problems, sick leave from work, loss of income, and change in employment status. We hope to identify psychosocial factors mitigating these associations as well as specific occupational groups as potential targets for interventions.

**Conclusions** Insights from this study will be integrated in further work and KTE activities to develop interventions improving management and support of informal caregivers at work.

**Noise**

**P-158 DEAFNESS AND FITNESS FOR WORK**


10.1136/OEM-2023-EPICOH.102

**Introduction** There are many occupational sectors where noise is excessive. Employees with a hearing impairment (HAI) are the most vulnerable, as it may lead to unfitness for work. Keeping people with an HAI in the workplace is a necessity.

**Objective** To determine the socio-professional characteristics of patients with hearing impairment.

To study the impact of hearing impairment on the patient’s medical fitness to work

**Methods** Retrospective cross-sectional study which had interested patients with HAI who consulted the Occupational Medicine Department of Charles Nicolle Hospital over a six-year period from January 2016 to November 2022.

**Results** One hundred and fifty-one patients with HAI consulted our department. The mean age was 43.47 ± 9.38 years. The predominance of males was noted in 70.9% of cases. ENT pathologies were found in 15.2% of the patients. The most observed HMW agents were vegetable textile dust (78.6%). The most common professional sectors were telecomunications (27.8%), food processing (11.3%), transport (8.6%), construction, and public works (8.6%). The jobs most occupied by the patients were manual workers (31.8%), teleconsultants (28.5%), drivers (8.6%), and machine operators (7.3%). The average professional seniority varied between 1 and 38 years. The patients suffered from sensorineural (76.8%), mixed (16.6%), and conductive (11.9%) hearing loss. The patients benefited from avoidance of exposure to lesional noise (69.5%), telephone calls (26.7%), safety posts (17.4%), and professional driving (8.9%). Reinforcement of personal protective equipment was indicated in 8.3% of cases. A declaration of the deafness as being of professional origin was done in 25.2% of cases.

**Conclusion** According to our studies, there are several workplaces that are not suitable when deafness is present. Therefore, early detection of these pathologies as well as the reinforcement of individual and collective protection equipment is necessary.

**Respiratory effects/Diseases**

**P-160 COMPARISON OF OCCUPATIONAL ASTHMA CHARACTERISTICS RELATED TO HIGH AND LOW MOLECULAR WEIGHT AGENTS**


10.1136/OEM-2023-EPICOH.103

**Introduction** Occupational asthma (OA) is one of the major occupational health problems given its high prevalence and significant socio-economic impact. Several studies have focused on analyzing the differences between irritant-induced asthma and allergen-induced asthma, but few researchers have evaluated the impact of the molecular weight of allergens on asthma phenotype.

**Objective** To describe the socio-professional characteristics of individuals with OA caused by low molecular weight agents (LMW) and those with OA caused by high molecular weight agents (HMW).

**Methods** Between 2016 and 2022, a cross-sectional descriptive study was conducted among asthmatic workers referred to the occupational medicine department of Charles Nicolle Hospital in Tunis for diagnostic and etiological exploration. Socio-professional data were collected from medical records. We have focused on the groups’ nature to which each was exposed in the course of his work to obtain two study groups A group of workers with asthma due to an LMW (G1) and a group of workers with asthma due to an HMW (G2). The analysis of the data was compared between the two groups.

**Results** A total of 51 workers were included (G1=42; G2=9). The mean age was 47.78 ± 9.2 years (G149.7 ± 8.8 years; G242.7 ± 8.3 years) with a female predominance in both groups (G1=56.8%; G2=71.4%). The mean occupational seniority was 21.33 ± 9 years (G122.3 ± 9.1 years; G218.7 ± 8.3 years). The average time between the onset of the first symptoms and the start of labor was G1 11.3 ± 9.8 years and G2 8.38 ± 6.48 years. The most registered LMW agents were isocyanates (32.4%) and formaldehyde (27%). The most observed HMW agents were vegetable textile dust (78.6%).

**Conclusion** More large-scale studies are planned to analyze whether patients with (OA) caused by LMW agents differed from patients with OA caused by HMW with regard to risk factors, asthma presentation, and severity.

**Noise**

**P-165 CAN ACUTONIC TRAUMA BE CONSIDERED AN ACCIDENT AT WORKPLACE?**


10.1136/OEM-2023-EPICOH.104

**Introduction** Acoustic trauma exists in the workplace and its evolution can be spontaneously favorable as well as serious.