COVID-19 AS THE OCCUPATIONAL DISEASE IN EMPLOYEES OF THE UNIVERSITY HOSPITAL OSTRAVA

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SUMMARY

Objectives: COVID-19 disease, which has caused a global pandemic, poses significant threat to the healthcare system as healthcare workers (HCW) are at an elevated risk of contracting the disease and being temporarily removed from their regular duties. This study analyses and evaluates a cohort of employees at the University Hospital Ostrava (UHO) who applied for the recognition of COVID-19 as an occupational disease.

Methods: The disease characteristics and risk factors for severe cases of COVID-19 were analysed for all 474 claimants who applied for recognition of an occupational disease during the reporting period (March 2020 to November 2022) and were obtained from medical records. Statistical evaluation was performed using Fisher's exact test, Pearson's chi-square test and logistic regression analysis.

Results: The largest number of diseases was objectified in the period from September to November 2020. The most frequently reported symptoms were subfebrilia or febrilia (81.4%), olfactory dysfunction (75.1%), and dry cough (74.3%). A severe course of COVID-19 was experienced by 15.4% of the cohort. Additionally, 76.8% reported having at least one chronic disease. The risk of severe course was found to increase with the number of chronic diseases ($p = 0.017$). Individuals with chronic respiratory disease (CRD) had a 2.75-fold increased risk, and women had an approximately threefold increased risk. Higher risk was also associated with increasing age.

Conclusions: Healthcare workers face a heightened risk of severe COVID-19, particularly among those with CRD, women and older age. Identifying these risk factors underscores the need for targeted preventive measures and early interventions to protect this vulnerable group and reduce the incidence of severe outcomes.

Key words: occupational disease, COVID-19, SARS-CoV-2, pandemics, healthcare workers, occupational risks

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INTRODUCTION

COVID-19 disease was first identified in December 2019 in Wuhan, China, following a cluster of pneumonia cases (1). Human-to-human transmission soon enabled severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) to spread globally (2). The World Health Organization (WHO) declared a public health emergency of international concern as early as on 30 January 2020. Studies examining the spread of the disease estimated the reproduction number to range between 1.4 and 6.5 during the period from December 2019 to the end of January 2020 (1, 3).

During the first year of the pandemic, the most reported symptoms of this highly infectious disease included fever, cough, fatigue, dyspnoea, and sputum. However, further research has also indicated the possible presence of gastrointestinal symptoms (diarrhoea) (4), neurological symptoms (headache, dizziness, disturbance in smell and taste) (5), and psychological symptoms (anxiety, depression and stress) (6). With the advent of the omicron variant, relatively milder symptoms have been described: mild cough, fever, fatigue, sore throat, headache and body aches. The disease may also present asymptomatically (7).

The first three cases of COVID-19 in the Czech Republic (10.87 million inhabitants as of 30 June 2023) were confirmed on 1 March 2020. Initially, government measures were put in place, which had a positive effect on the spread of the disease. However, the situation deteriorated significantly in the second half of 2020, with a peak in late 2020 and early 2021, when there was a significant increase in the number of cases and hospital admissions, leading to hospital overcrowding and a significant threat to the health of healthcare workers (HCW) (8, 9). As of 22 May 2023, more than 4.6 million infections have already been confirmed in the Czech Republic, including reinfections, with more than 42,000 deaths attributed to COVID-19. The mortality rate of the disease depends mainly on the prevailing variant and also on the age of the patient. During the expansion of the alpha variant, at the end of 2020, it was around 2%. The overall mortality rate for the entire observed period has reached approximately 1% (10).

Occupational diseases in the Czech Republic are defined by Government Regulation No. 290/1995 Coll., which establishes a List of Occupational Diseases. In the Czech classification system, COVID-19 falls under Chapter V, which includes occupational communicable and parasitic diseases, one of six designated chapters. Between 2016 and 2019, the number of reported occupational diseases among HCW in Chapter V did not exceed 160 reports per year, but in 2020 there were 260 reports and in 2021 and 2022 the number of cases among healthcare workers surpassed 5,000 (5,011 cases in 2021 and 5,881 cases in 2022) (11). COVID-19 is considered an occupational disease if it meets the conditions set out in the List of Occupational Diseases. These conditions were specified by the Society of Occupational Medicine. To qualify COVID-19 as an occupational disease, it must be proven by a laboratory result from a certified laboratory with clinical manifestation of symptoms, and at the same time the infection must have occurred in an occupation with a higher risk of exposure compared to the general population. In November 2023, the clinical condition criteria were tightened so that, in addition to laboratory evidence, at least a moderate course (particularly pneumonia) must be demonstrated for an occupational disease to be recognised (12–14).

HCW are at increased risk of COVID-19 infection despite the use of personal protective equipment, particularly due to direct care of symptomatic and asymptomatic patients with frequent contact with body substances, aerosols, infected medical instruments and surfaces (15). Simultaneously, infected HCW pose a risk to hospitalised patients, colleagues and family members (16). Therefore, protecting the health of HCW is a key part of the government's strategy to prevent not only infection of HCW but also overcrowding of healthcare facilities. Measures implemented in the Czech Republic included postponing selected diagnostic and treatment procedures, remote communication with HCW, triage points in healthcare facilities, patient testing, and the use of personal protective equipment (17). HCW in UHO followed the UHO internal guidelines at the time of the overcrowding. These measures have not been in use since 2022 due to the improved epidemiological situation.

The aim of this study was to characterise the population of workers diagnosed with COVID-19 as an occupational disease and to describe the course of illness. Furthermore, the study sought to identify and quantify risk factors associated with a severe course, which – for the purposes of this study – was defined as pneumonia, prolonged incapacity for work (over 6 weeks), or other serious complications (e.g., hospitalisation for non-pulmonary reasons).

MATERIALS AND METHODS

Participants and Data Collection

This study analysed 474 cases of occupational disease among 470 UHO employees (4 cases were reinfections) who were admitted to the UHO Occupational Medicine Department between March 2020 and November 2022. The data were collected from medical records of these employees and includes all UHO employees who underwent an occupational disease recognition process without exclusions. All data were anonymised in accordance with Act No. 101/2000 Coll. on the Protection of Personal Data and on the Amendment of Certain Acts and the employees also provided informed consent for data processing.

Demographic data (age, sex, occupation, smoking, body mass index – BMI), presence of chronic diseases diagnosed prior COVID-19 infection, disease severity, vaccination information, and date of diagnosis were recorded. Height and weight data for BMI calculation were self-reported by patients without further verification. Disease severity was evaluated for selected symptoms (headache, taste dysfunction, muscle and joint pain, irritating cough, olfactory disturbance) based on duration. A mild course was defined as the duration of a given symptom up to 14 days, moderate course from 15 days to 2 months, and severe course more than 2 months. Based on body temperature, patients were classified as asymptomatic (< 37.3 °C), subfebrile (37.4–37.9 °C), or febrile (≥ 38 °C). Severe course was defined into three categories, namely pneumonia, long condition (incapacity for work exceeding 6 weeks), and other severe symptoms (e.g., hospitalisation for reasons other than pneumonia). For chronic conditions and other symptoms (e.g., sore throat, runny nose, digestive problems), only the presence or absence (yes, no) was monitored.

Statistical Analyses

Descriptive statistics were used for categorical data, presented as absolute frequencies and percentages, mean and standard deviation for quantitative data. Pearson's chi-square test and Fisher's exact test were used to assess the association between the severity of COVID-19 and potential risk factors. A binomial logistic regression model adjusted for age, sex, BMI, and other factors was employed to evaluate the association between chronic conditions and the likelihood of a severe course of disease, with the output reported as adjusted odds ratios (OR) with 95% confidence intervals (CI). Data were processed using Stata version 17 statistical software at a 5% significance level.

RESULTS

The UHO employs 4,280 individuals, of whom 3,600 are healthcare professionals. As of 30 November 2022, 474 occupational disease claims related to COVID-19 disease had been submitted by 470 employees. This corresponds to nearly 11% of the total workforce. No employee had died from the disease. Four employees were pregnant at the time of their infection.

The highest number of confirmed cases occurred in 2020, with 341 cases (71.9%), while 128 cases (27%) were confirmed in 2021. In 2022, there were a total of 5 cases (1.1%). Case confirmation was based on the date of diagnosis using a positive laboratory result (PCR or antigen test) in conjunction with the presence of clinical symptoms. In one case, the date of confirmation was determined by the result of an X-ray examination showing typical changes in lung tissue consistent with COVID-19 infection in a patient with a positive antibody test.

The initial cases were reported in March 2020 (Fig. 1). Most cases were recorded during autumn 2020, with 213 cases (44.9% of all claims) reported between September and November. Between December 2020 and January 2021, 199 cases (42% of all claims) were documented.

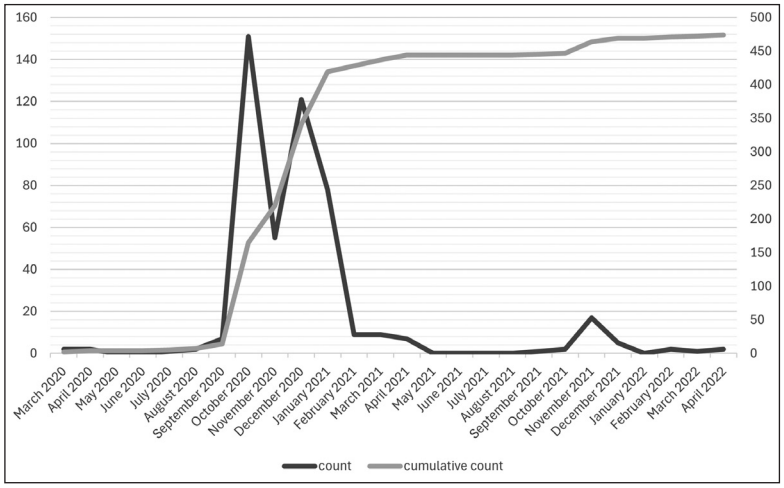

Fig. 1. *Monthly distribution of confirmed COVID-19 cases among UHO employees.*

The study population was predominantly female (Table 1) with 401 claims (84.6%) submitted by women compared to men with 73 claims (15.4%). The age of participants ranged from 22 to 69 years, with the most common age group being 40–49 years (32.5%). The mean age was 43.8 ± 11.0 years. Nurses (including midwives) represented the largest group with 271 cases (57.2%), followed by 91 physicians (19.2%), and 65 paramedics (13.7%). Some study subjects were classified in the other professional groups, which were medical (3.2%) and non-medical (0.8%) – biomedical technician, transport driver for the sick and injured, dispatcher, and maintenance manager. The most frequently affected departments were cardiac surgery (8.0%), infectious diseases department (6.8%), and surgery (6.3%), but a total of 44 departments were represented.

The majority of claimants, 351 (74.0%), were non-smokers. There were 60 ex-smokers (12.7%) and 63 smokers (13.3%). A body mass index within the normal range (≤24.99) was reported by 212 claimants (44.7%). A third of the claimants were overweight and 22.2% were classified as obese. BMIs ranged from 17 to 50 kg.m^{-2}.

Unvaccinated individuals represented the majority of the cohort, accounting for 90.1%. One or two doses of vaccination had been administered to 8.2% of claimants and only 1.7% had received a booster dose.

A total of 76.8% of individuals reported having a chronic condition prior to COVID-19 diagnosis; 41.8% of patients were found to have more than one chronic condition (one claimant reported 7 chronic conditions). More than half of the claimants (54.6%) suffered from an allergic condition. Cardiovascular disease (excluding hypertension) was reported in 18.6% of cases. Hypertension was present in 17.7% of cases, and chronic respiratory disease (CRD) in 17.9%. Cancer was present in 9.3% of claimants and diabetes in only 3%. A total of 7.6% of cases reported other chronic diseases (anaemia, ulcers, bowel disease, multiple sclerosis, gout, Bechterew's disease).

The most reported symptoms (Fig. 2) included subfebrilia or febrilia (81.4%), total or partial olfactory dysfunction (75.1%), dry cough (74.3%), muscle and joint pain (69.8%), fatigue (63.5%), dysgeusia (62.7%), and headache (57.0%). Body temperature exceeded 38 °C in more than half of the cases (52.7%). A subfebrile temperature of 37.4–37.9 °C was observed in 28.7% of cases. However, in a total of 88 (18.6%) cases, the temperature remained below 37.3 °C.

The duration of selected symptoms was also recorded (Table 2). Olfactory disturbance persisted for longer than two months

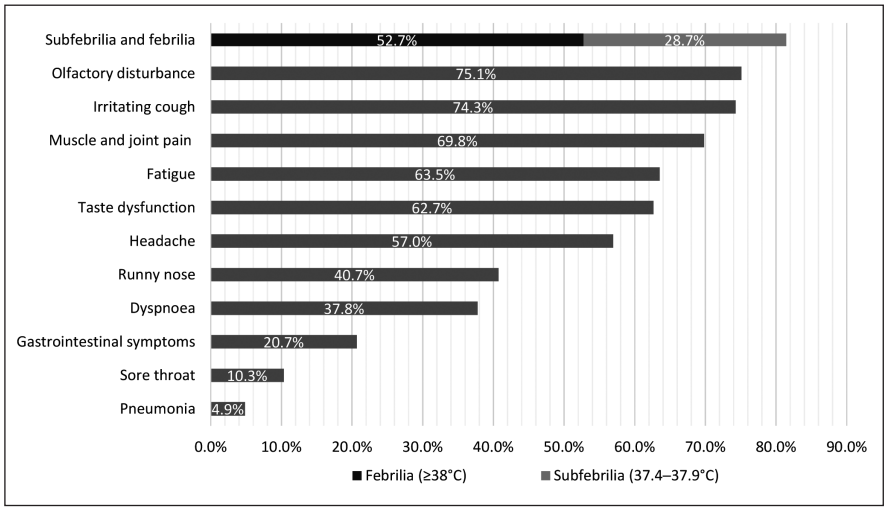

Fig. 2. *Prevalence of clinical symptoms of COVID-19 among UHO employees.*

Table 2. *Duration and prevalence of COVID-19 symptoms*

Symptoms	Asymptomatic n (%)	<14 days n (%)	15 days to 2 months n (%)	>2 months n (%)
Olfactory disturbance	118 (24.9)	223 (47.0)	99 (20.9)	34 (7.2)
Irritating cough	122 (25.8)	257 (54.2)	84 (17.7)	11 (2.3)
Muscle and joint pain	143 (30.2)	293 (61.8)	26 (5.5)	12 (2.5)
Taste dysfunction	177 (37.4)	202 (42.6)	77 (16.2)	18 (3.8)
Headache	204 (43.0)	246 (51.9)	11 (2.3)	13 (2.7)

chronic respiratory disease (CRD) ($p<0.001$), and disorder of lipid metabolism ($p=0.046$) were found to significantly influence the incidence of severe course during COVID-19 (Table 1). ORs for these chronic conditions were adjusted for age, gender, smoking, BMI, and vaccination status. A statistically significant OR was observed for CRD (OR = 2.75, 95% CI: 1.48–5.10). After adjustment for confounding variables, an approximately threefold increased risk of severe COVID-19 was observed in women compared to men, along with a higher risk in older individuals. In our study, this applied specifically to the age group of 50–64 years (Table 3). No statistically significant protective effect of vaccination was observed in this cohort.

DISCUSSION

During the pandemic, COVID-19 was most frequently reported as a work-related disease in a variety of occupations, including clerks, machinists, teachers, and healthcare professionals. Although nurses and paramedics were among the most affected groups in 2020, their relative risk decreased in 2021. This shift was likely influenced by early vaccination, acquired immunity, and the widespread use of personal protective equipment. In contrast, the risk of infection increased among non-healthcare occupations such as clerks and factory workers (18).

Between March 2020 and November 2022, a total of 474 claims for the recognition of COVID-19 as an occupational disease were submitted by UHO workers with an average age of 43.8 ± 11.0 years. In 2023, additional 84 cases of COVID-19 as an occupational disease were recognized, and as of 12 June 2024, 40 more cases were confirmed. However, these cases were not included in the analysis. In our cohort, women (84.6%) significantly outnumbered men, also due to the higher representation of women in the Czech healthcare system overall (19).

In total, 11% of all UHO workers were affected by COVID-19 infection. In a study from Italy, which was severely affected by

Table 3. *Effect of chronic conditions on severe COVID-19 occurrence*

Severe COVID-19[1] factor		Hypertension (n = 85)			Chronic respiratory disease (n = 84)			Dyslipidaemia (n = 44)		
		OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Disease	No	Ref.			Ref.			Ref.		
	Yes	1.74	0.85–3.53	0.127	**2.75**	**1.48–5.10**	**0.001**	1.61	0.71–3.65	0.250
Gender	Male	Ref.			Ref.			Ref.		
	Female	**2.98**	**1.01–8.74**	**0.047**	**3.10**	**1.05–9.14**	**0.040**	**3.00**	**1.03–8.77**	**0.045**
Age group (years)	20–29	Ref.			Ref.			Ref.		
	30–39	2.06	0.53–7.9	0.295	1.88	0.48–7.30	0.361	2.12	0.55–8.15	0.275
	40–49	2.03	0.56–7.32	0.280	1.95	0.53–7.08	0.313	2.10	0.58–7.58	0.255
	50–64	3.51	0.98–12.62	0.054	**3.67**	**1.04–12.98**	**0.044**	**3.77**	**1.06–13.41**	**0.040**
	65+	2.68	0.35–21.1	0.349	2.69	0.35–20.85	0.343	3.58	0.48–26.58	0.212
Smoking	Non-smoker	Ref.			Ref.			Ref.		
	Ex-smoker	1.12	0.52–2.42	0.767	0.98	0.45–2.14	0.953	1.16	0.54–2.48	0.710
	Smoker	0.58	0.22–1.56	0.282	0.58	0.21–1.54	0.272	0.54	0.20–1.46	0.226
BMI	<24.99	Ref.			Ref.			Ref.		
	25–29.99	1.30	0.67–2.52	0.441	1.41	0.73–2.72	0.313	1.28	0.66–2.49	0.463
	>30	1.07	0.50–2.31	0.865	1.37	0.67–2.80	0.391	1.25	0.61–2.56	0.545
Vaccination	No	Ref.			Ref.			Ref.		
	Yes	0.99	0.39–2.53	0.981	0.91	0.35–2.37	0.844	1.01	0.39–2.56	0.991

[1]Severe COVID-19 was defined as pneumonia, a prolonged course of illness (incapacity for work lasting more than six weeks), or other serious symptoms (e.g., hospitalisation for reasons other than pneumonia), and was identified in 62 (13.1%) out of 474 cases. OR – odds ratio; CI – confidence interval; Ref. – reference. Numbers in bold indicate statistically significant values.

Table 1. *Characteristics of study participants and assessment of risk factors for severe course in COVID-19 disease*

Category	Variables	Severe condition[1]		Total n (%)	p-value
		No n (%)	Yes n (%)		
Gender	Male	69 (94.5)	4 (5.5)	73 (15.4)	**0.037**[a]
	Female	343 (85.5)	58 (14.4)	401 (84.6)	
Age group (years)	20–29	59 (95.2)	3 (4.8)	62 (13.1)	**0.022**[a]
	30–39	91 (90.1)	10 (9.9)	101 (21.3)	
	40–49	136 (88.3)	18 (11.7)	154 (32.5)	
	50–64	118 (80.3)	29 (19.7)	147 (31)	
	65+	8 (80.0)	2 (20.0)	10 (2.1)	
Profession	Nurse	236 (87.1)	35 (12.9)	271 (57.2)	0.458[a]
	Doctor	82 (90.1)	9 (9.9)	91 (19.2)	
	Paramedic	53 (81.5)	12 (18.5)	65 (13.7)	
	Physiotherapist	18 (94.7)	1 (5.3)	19 (4)	
	Radiologist	7 (77.8)	2 (22.2)	9 (1.9)	
	Other professionals	16 (84.2)	3 (15.8)	19 (4)	
Smoking	Non-smoker	304 (86.6)	47 (13.4)	351 (74)	0.337[b]
	Ex-smoker	50 (83.3)	10 (16.7)	60 (12.7)	
	Smoker	58 (92.1)	5 (7.9)	63 (13.3)	
BMI	< 24.99	190 (89.6)	22 (10.4)	212 (44.7)	0.273[b]
	25–29.99	134 (85.4)	23 (14.6)	157 (33.1)	
	> 30	88 (83.8)	17 (16.2)	105 (22.2)	
Vaccination	Non-vaccinated	371 (86.9)	56 (13.1)	427 (90.1)	0.784[a]
	One dose	12 (85.7)	2 (14.3)	14 (2.9)	
	Two doses	21 (84.0)	4 (16.0)	25 (5.3)	
	Three doses	8 (100.0)	0 (0.0)	8 (1.7)	
Chronic disease	Allergies	224 (86.5)	35 (13.5)	259 (54.6)	0.759[b]
	Cardiovascular disease	73 (83.0)	15 (17.0)	88 (18.6)	0.222[b]
	Hypertension	66 (77.7)	19 (22.3)	85 (17.9)	**0.005**[b]
	Chronic respiratory disease	63 (75.0)	21 (25.0)	84 (17.7)	**< 0.001**[b]
	Cancer	39 (88.6)	5 (11.4)	44 (9.3)	0.723[b]
	Dyslipidaemia	34 (77.3)	10 (22.7)	44 (9.3)	**0.046**[b]
	Thrombophilia	16 (76.2)	5 (23.8)	21 (4.4)	0.175[a]
	Diabetes mellitus	11 (78.6)	3 (21.4)	14 (3.3)	0.409[a]
	Other	30 (83.3)	6 (16.7)	36 (7.6)	0.449[a]
Number of chronic diseases	0	100 (90.9)	10 (9.1)	110 (23.2)	**0.017**[b]
	1	149 (89.8)	17 (10.2)	166 (35.0)	
	2	96 (86.5)	15 (13.5)	111 (23.4)	
	≥ 3	67 (77.0)	20 (23.0)	87 (18.4)	

[1]Severe course was defined as pneumonia, prolonged course of illness (length of incapacity for work over 6 weeks) and other severe symptoms (e.g., hospitalisation for reasons other than pneumonia). [a]Fisher's exact test; [b]Pearson's chi-square test. Numbers in bold indicate statistically significant values.

in 7.2% of cases but resolved within 14 days in 71.9% of cases. A dry irritating cough resolved within 14 days in 80.0% of cases. The same results were found for taste dysfunction. Muscle and joint pain most often resolved within 14 days of first symptoms (92.0%). Headaches resolved within 14 days in 94.9% of cases.

In total, a severe course was observed in 62 (13.1%) claimants. Pneumonia was observed in 23 cases (4.9% of all cases), a prolonged course of illness in 22 (4.6%) cases and other severe symptoms (hospitalisation for reasons other than pneumonia, heart problems, chronic obstructive pulmonary disease, etc.) in 17 cases (3.6%).

An increase in the number of chronic diseases was associated with a higher risk of severe course ($p = 0.017$). Factors such as gender ($p = 0.037$), age ($p = 0.022$), hypertension ($p = 0.005$),

the COVID-19 pandemic, 9% of HCW tested positive (20). In our UHO cohort, nurses comprised 57.2% and physicians 19.2% of the cohort. In an Omani study, COVID-19 was also most prevalent among nurses, but only in 38% of cases. Physicians represented 13% of the cohort (21). A study conducted in Wroclaw reported a similar distribution as observed in our study: nurses 48.5%, physicians 17.1%, although only a subset of COVID-19-positive workers participated in that study (22).

COVID-19-positive employees were screened for factors that could potentially influence disease progression. These factors included age, smoking status, BMI, vaccination status, and pre-existing chronic diseases.

We found that 13.3% employees in our study were smokers. We did not observe an increased risk of a severe progression in smokers; however, some studies have reported higher prevalence of smoking among patients with severe progression (23–25). BMI levels are increasing in the Czech population; in 2019, 60% of adults had a BMI over 25 $kg.m^{-2}$ (26). Elevated BMI is associated with a higher risk of intubation and death among COVID-19 patients (27). The vaccination rate against COVID-19 disease among HCW in our study was very low. This was likely due to the high number of infections before the vaccination campaign that began in the last days of December 2020 in the Czech Republic, initially targeting the most at-risk HCW (28). In our study, probably for the reasons mentioned above, the protective effect of vaccination against severe course and mortality, although confirmed by numerous studies, was not evident in our cohort (29–31).

More than three-quarters of the HCW we surveyed reported at least one chronic condition that could potentially increase their risk of developing a serious condition after being exposed to SARS CoV-2. A study from the USA reported at least one comorbidity in 67.5%, but this study only included chronic respiratory disease, cardiovascular disease, cancer incidence in the past 3 years, diabetes, kidney and liver disease, and smoking or BMI $\geq$40 (32). The most frequently reported chronic condition in our study were allergies (54.6%), cardiovascular disease (18.6%), hypertension (17.9%), and CRD (17.7%). In the study from Wroclaw, Poland, the same proportion of health professionals reported hypertension (17.14%), but only 7.14% reported respiratory diseases and only 1.43% reported cardiovascular diseases (22).

The majority of respondents experienced either subfebrile (28.7%) or febrile (52.7%) temperatures, followed by olfactory disturbance, irritating cough, muscle and joint pain, fatigue, taste dysfunction, and headache, which are common symptoms reported in the general population (4, 33). Symptom prevalence varies across studies, for example, a German study describes the occurrence of fever in only 25.3% of people (34). At the same time, differences in symptoms have been described between patients who received COVID-19 in the first wave and those who tested positive in the second wave, where was a statistically significant decline in the incidence of fever, cough and dyspnoea during the second COVID-19 wave (35).

We identified several factors that significantly increased the risk of a severe course and therefore calculated ORs for them. A statistically significant increase in risk was found in individuals with CRD compared with people without CRD. The increased risk of intensive care unit stays or death with concomitant CRD has also been confirmed by other studies (23). Aveyard et al. also report an association with a higher number of asthma medications but reject an association with less severe asthma (36). In our study, the prevalence of hypertension and other cardiovascular diseases did not indicate an elevated risk of severe course, although the role of these factors remains controversial. Other factors such as age or the presence of other comorbidities (diabetes, renal impairment, obesity, etc.) are also thought to be influential (37–39). Age as a risk factor, specifically the 50–64 years age group in our study, was confirmed, as was female sex. Among those over 65 years, no statistically significant increase in risk was observed, possibly due to small sample size (only 10 participants).

The uneven age distribution is therefore one of the limitations of this study, along with the gender imbalance, the low proportion of vaccinated individuals due to the early date of disease confirmation, and the small number of patients with severe disease. Additionally, the influence of some chronic diseases on the severity of COVID-19 disease could not be thoroughly investigated, again due to low representation. Because only cases with clinical manifestation were recognized as occupational diseases, the proportion of asymptomatic workers could not be assessed. The study period was also limited to the period from March 2020 to November 2022, excluding cases recognized after that timeframe.

In the Czech Republic, the main incentive for reporting occupational disease is the possibility of compensation based on a points system. From 2023, the value of a point equals 1% of the average annual wage from the previous year. Until 2022, the value of 1 point has been set at approximately EUR 10. Compensation is awarded for pain (50–600 points) and impairment of social life (1,000–6,000 points). Compensation for pain ranges from EUR 802 to EUR 9,696 and is determined once the medical condition has stabilized. Compensation for impairment of social life ranges from EUR 16,043 to EUR 96,260 and is payable no earlier than one year after the onset of the occupational disease. In the case of hospitalisation for a COVID-19 disease, compensation ranges from 200 to 400 points, i.e., the possible amount of compensation is between EUR 3,208 and EUR 6,417. In the case of psychiatric disorders (COVID fog) or pulmonary diffusion disorders (COVID lung), the compensation is EUR 16,043. In the event of death, the compensation amounts to EUR 96,260 (40).

CONCLUSIONS

In conclusion, HCW are at an increased risk of contracting COVID-19 compared to the general population. At the UHO, 474 occupational disease claims were submitted, representing 11% of the workforce. Among these, 62 (13.1%) claimants experienced severe courses, with no fatalities reported. Similar to the general population, HCW are exposed to risk factors that can significantly contribute to the deterioration of their health. Our study identified several key risk factors contributing to the severity of COVID-19 among HCW including gender, age, hypertension, CRD, and dyslipidaemia. After adjusting for confounding factors, an increased risk of severe COVID-19 was observed in individuals with CRD, as well as in women and older adults. Notably, the protective effect of vaccination was not evident in our cohort, likely due to the low vaccination coverage during the early stages of the pandemic. These findings highlight the importance of targeted

preventive strategies for HCW, especially those with pre-existing health conditions.

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Conflicts of Interest

None declared

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