

EDITORIAL

COVID-19: a new work-related disease threatening healthcare workers

The novel coronavirus disease (COVID-19) has become a global pandemic. Drastic measures are being taken to flatten the peak and slow down its progression to reduce fatalities caused by the collapse of healthcare systems and overstretched hospital capacity [1]. Intensive care physicians, emergency doctors, general practitioners, nurses and even cleaning staff are making a huge effort to support patients. As we have learned from China, Italy and previous outbreaks (e.g. SARS and MERS), medical professionals and first responders have a very high risk of infection. During the SARS outbreak, for example, one in five cases globally were healthcare workers [2]. Recent data from the COVID-19 crisis in Italy are equally alarming, indicating that 20% of Italian healthcare workers were infected [3].

COVID-19 should be considered to be a new work-related disease, at least in the case of healthcare workers. Patients infected with the coronavirus can easily transmit it to medical staff through contact or airborne droplets, especially when coughing or sneezing [4]. Medical staff are in direct contact with patients who are suspected or confirmed to be infected with the coronavirus and therefore run a substantial risk of exposure to this novel biological agent.

Signs are emerging that countries are insufficiently prepared to protect healthcare workers from infection, adding additional pressure. For example, hospitals are reporting shortages of personal protection equipment (PPE) (masks, gloves, gowns, hand sanitizers, etc.), testing equipment and ventilators which are all necessary for management of patients with COVID-19. Some medical staff are seeing suspected or confirmed COVID-19 patients using PPE that does not meet safety requirements and is unlikely to provide adequate protection. Data from Italy suggest that healthcare workers experienced high rates of infection and death partly because of inadequate access to PPE [5].

Whether COVID-19 will be considered a compensatable occupational disease is the subject of current discussion and will depend on national legislation. In Belgium, COVID-19 infection in healthcare workers has already been added to the list of proscribed occupational diseases. The criteria are working in the healthcare sector, and a polymerase chain reaction-proven COVID-19 infection. In the meantime, it is vital to identify the

jobs that face higher exposure and higher infection risk. It is our moral duty to investigate whether COVID-19 should be recognized as an occupational disease and provide evidence for compensation.

The recognition of COVID-19 as a workplace hazard is important for workers in other sectors as well. Many service workers could be impacted by COVID-19 as indicated by Baker *et al.* [6]. Approximately one in five US workers are employed in occupations where exposure to infection occurs at least once a month. Beside the healthcare sector, other sectors such as uniformed service occupations (e.g. police officers, firefighters), office and administrative support sectors (e.g. couriers), pre-school and day-care teachers, community and social services, service and transportation workers and even construction and extraction may be considered at risk professions [6].

As well as professions at higher risk due to the nature of work, lack of adaptation of working conditions to the newly emerging situation can put workers from other professions at risk. This may include lack of access to flexible working, lack of access to paid sick leave or inability to provide substitute workers [6]. Another aspect, which is currently overlooked, is the potential role of work and environmental factors in progression of the disease. Studies about other pandemics (i.e. SARS) show the impact of environmental factors, such as temperature and weather variables, on the spread of the virus [7]. In addition, it is not clear why the disease can lead to fatal pneumonia in some adults while others experience mild symptoms. Besides genetic factors, environmental factors (e.g. smoking and obesity) could play an equally significant role.

We suggest collecting data and sharing good practice for effective prevention. Work-related factors that facilitate virus transmission remain largely unknown even though they may be crucial for the prevention of future epidemics. Therefore, we need to investigate how work can contribute to disease development and how we can prevent further spread by implementing work prevention measures. It is also important for employers to set up a comprehensive 'infectious disease preparedness and response plan' tailored to their workplace, including addressing exposure risks, sources of exposure and routes of transmission, not only for the

ongoing COVID-19 crisis, but also for future pandemics. This plan should additionally include how the company will deal with a reduced workforce, presenteeism and work planning changes. It should also provide guidelines and training for employees on risks, preventive measures, etc. [4].

However, even this may not be enough. We also need to be aware of the acute and long-term consequences on mental health of healthcare professionals. China and Italy have already faced a drop out of healthcare personnel, not only due to infection with COVID-19, but also due to the consequences of acute stress, frustration and isolation. Results of a multicentre survey involving 1563 medical staff, conducted in Guangzhou, China are alarming, reporting the prevalence of depression to be 51%, anxiety 45%, insomnia 36% and symptoms of distress 73% [8]. A study by Maunder *et al.* found that doctors providing healthcare during a pandemic face a substantially higher risk of developing long-term mental health problems due to chronic stress or traumatic experiences [9]. After the COVID-19 crisis, an additional dropout should be expected due to long-term mental health problems in medical staff. In the face of more fundamental threats, protecting mental health may not seem like a priority now. However, since it is likely that the demands on healthcare systems around the globe will exceed capacity for several months, caring for the mental health of medical staff will be of utmost importance.

Protecting healthcare workers and other workers with high infection risk requires a multipronged and global strategy, starting with the recognition of COVID-19 as an occupational disease. In addition, the strategy should be multilevel, from employers to national government to international institutions, as the challenges require a local, national and global response, to provide enough PPE, testing equipment and ventilators. Furthermore, employers should set up a comprehensive ‘infectious disease preparedness and response plan’ to prepare and support employees during and after a pandemic. The mental health of medical staff is extremely important. Learning from other countries (i.e. China and Italy) and past pandemics, we should act now to prevent a mental health crisis during and after COVID-19, and also for future potential outbreaks [10]. Regardless of whether government prevention strategy is aimed at suppression or mitigation, building healthcare capacity should be a top priority now, including protection of healthcare workers as our most valuable resource.

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