

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

### ARTICLE IN PRESS

Safety and Health at Work xxx (xxxx) xxx

Contents lists available at ScienceDirect



Safety and Health at Work

journal homepage: www.e-shaw.net



# Editorial Return to Work for Workers with Post-COVID Conditions

Individuals who suffer from coronavirus disease 2019 (COVID-19) generally fully recover with few or no symptoms following an acute infection. However, approximately 10-20% of individuals continue to report persistent or sometimes progressive or even incapacitating symptoms after the resolution of the initial infection-described as post-COVID conditions [1]. Characterization of post-COVID conditions remains unclear with differences in case definitions adopted by various international organizations and institutions. Individuals with post-COVID conditions report highly heterogenous multisystemic symptoms, which may be nonspecific and fluctuating, which makes it difficult to clearly define the disease. Common symptoms reported include fatigue, dyspnea, joint pain, chest pain, cough, change in sense of smell or taste, cognitive disturbances, and hoarseness of voice. Less common symptoms are insomnia, low-grade fevers, headaches, neurocognitive difficulties, myalgia and weakness, gastrointestinal symptoms, rashes, and depression [2]. Risk factors that have been described for post-COVID conditions include a history of severe COVID-19 illness during the acute infection, preexisting comorbidities such as obesity, diabetes, respiratory and cardiovascular diseases, patients who are immunocompromised, older patients, and females [2]. Recovery from post-COVID conditions can be slow, and symptoms may affect the individual's function and impede return to work (RTW). It has been estimated that 1.2-4.8% of COVID-19 patients will develop post-COVID conditions with debilitating symptoms [3].

While returning to work after an acute illness or with ongoing symptoms may be challenging, it is well recognized that prolonged sick leave away from work increases the probability of the worker not returning to work entirely. It is crucial to recognize that returning to work can serve as an effective rehabilitation tool for the worker and is integral to the recovery process from post-COVID conditions. One should bear in mind that workers experiencing post-COVID conditions do not need to be completely asymptomatic to be able to work effectively, particularly if the workplace and employers are able to provide the required support. The evaluation for post-COVID conditions can be complex and requires a holistic and person-centered approach [4]. A comprehensive clinical history and appropriate medical examination to assess physical, cognitive, psychological, and psychiatric symptoms, and functional abilities and impairment will need to be conducted. The extent to which the symptoms influence the worker's function and the level of assistance required are variable, and it will be necessary to identify and focus on aspects of the worker's specific job and processes that are most affected.

It is important to engage the worker and start the RTW conversation early to prepare for the worker's return, as the worker has a role to play in the decisions made regarding the adjustments in job duties and the workplace. Workers with post-COVID conditions are often also adjusting emotionally, mentally, and physically to cope with their symptoms, and it is vital that their needs and concerns are listened to and acknowledged. Relapses can occur in workers, which may sometimes be triggered by workplace mental and physical stress arising from prematurely returning to work. Thus, ongoing management of the workers should incorporate regular reviews, with adjustments made if needed. The RTW process requires a multidisciplinary effort that involves all stakeholders, including the worker's employers, colleagues, relevant medical specialists, and allied health professionals such as occupational therapists or physiotherapists. This is to establish and provide available and appropriate interventions for the worker. Interventions that can be proposed in the RTW plan for the worker include a phased return-to-work with the provision of reduced working hours, flexible work settings with hybrid arrangements allowing for workfrom-home if suitable, and temporary job redeployment or work task adjustments with lower physical or mental strains [5]. The worker should also be given time off to attend medical appointments and required rehabilitation sessions and should be educated on symptoms management strategies.

A significant aspect in the RTW evaluation that should not be overlooked is the mental health impacts arising from the stigma of the illness. Social stigmatization may be a result of the perceptions from family members, co-workers, and employers of the ongoing symptoms and functional impairments resulting from post-COVID conditions. This requires the RTW to be conducted in a safe and supportive environment, with adequate social support from within and outside of the workplace, to minimize the mental impact on the worker. Recovery from post-COVID conditions can take time with each worker requiring different levels of care depending on their job duties, severity of symptoms experienced, work environment and personal situation. Fortunately, most workers do improve with time, and as more is known about post-COVID conditions, we can optimistically look forward to improved treatments and more enlightened care for these workers.

### **Conflicts of interest**

The authors declare no conflict of interest for our submitted Editorial, entitled "Return to Work for Workers with Post-COVID conditions."

2093-7911/\$ – see front matter © 2022 Occupational Safety and Health Research Institute, Published by Elsevier Korea LLC. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/). https://doi.org/10.1016/j.shaw.2022.08.001

Please cite this article as: Koh D, Tan A, Return to Work for Workers with Post-COVID Conditions, Safety and Health at Work, https://doi.org/ 10.1016/j.shaw.2022.08.001 2

## **ARTICLE IN PRESS**

#### Saf Health Work xxx (xxxx) xxx

### References

- World Health Organization. Coronavirus disease (COVID-19): post COVID-19 condition [Internet]; 2021. December 16 [cited 2022 July 15]. Available from: https://www.who.int/news-room/questions-and-answers/item/coronavirusdisease-(covid-19)-post-covid-19-condition.
- Royal Australian College of General Practitioners. Caring for patients with post-COVID-19 conditions [Internet]; 2022 [cited 2022 July 15]. Available from: https://www.racgp.org.au/clinical-resources/covid-19-resources/clinical-care/ caring-for-patients-with-post-covid-19-conditions/introduction.
   Thompson EJ, Williams DM, Walker AJ, Mitchell RE, Niedzwiedz CL, Yang TC,
- [3] Thompson EJ, Williams DM, Walker AJ, Mitchell RE, Niedzwiedz CL, Yang TC, et al. Long COVID burden and risk factors in 10 UK longitudinal studies and electronic health records. Nat Commun 2022 Jun 28;13(1):3528. <u>https:// doi.org/10.1038/s41467-022-30836-0</u>. PMID: 35764621; PMCID: PMC9240035.
- doi.org/10.1038/s41467-022-30836-0. PMID: 35764621; PMCID: PMC9240035.
  [4] National Institute for Health and Care Excellence. COVID-19 rapid guideline: managing the long-term effects of COVID-19 [Internet]; 2020. December 18 [cited 2022 July 15]. Available from: https://www.nice.org.uk/guidance/ng188.
- [5] Health and Safety Executive. Return to work after long COVID: evidence at 8th March 2021 [Internet]; 2021 [cited 2022 July 15]. Available from: https://www. hse.gov.uk/research/assets/docs/return-to-work-after-long-covid.pdf.

David Koh\* Saw Swee Hock School of Public Health, National University of Singapore, 12 Science Drive 2, #10-01, 117549 Singapore

Alvin Tan Ministry of Health Holdings, 1 Maritime Square, 099253 Singapore E-mail address: alvin.tankw@mohh.com.sg (A. Tan)

\* Corresponding author.

E-mail addresses: ephkohd@nus.edu.sg, david.koh@u.nus.edu (D. Koh)

David Koh: https://orcid.org/0000-0001-6803-7879;

Alvin Tan: https://orcid.org/0000-0002-2302-8247

Available online xxx