

### Question submitted to RapidInfo4U

What is the impact on return to work for patients with COVID-19 who have been hospitalised?

### Answer

In Ireland 3,676 people have been hospitalised because of COVID-19. There is no information on the consequent work status of these individuals. This is also the case on the global stage. There are indications from small scale studies and research on similar diseases (SARS & MERS) that some individuals hospitalised with COVID-19 will experience delayed return to work. Fatigue and breathlessness are the most common post-discharge symptoms. Scientists and professional bodies are calling for occupational therapists and other allied health professionals to prepare for the surge in demand for services but more research is needed to determine the long-term consequences of a COVID-19 hospitalisation and its impact on return to work.

## Details of answer

### Current research on post-discharge impact of COVID-19

To date the focus for clinicians and researchers has been on the acute phase of COVID-19 [1]. At this stage, there is little evidence on the long-term consequences of a COVID-19 hospitalisation and the impact this has on an individual's return to work [1]. Current evidence for COVID-19 comes from small scale, single site studies, below are some examples.

#### *A study from Italy ~ 36 days post-discharge*

A study from Italy reported on patients evaluated with a questionnaire an average of 36 days after hospital discharge [2]. At that time only 18 (12.6%) were completely free of any COVID-19-related symptoms [2]. Ongoing symptoms reported were fatigue in 53% of patients, dyspnoea in 44%, joint pain in 27% and chest pain in 22% [2]. This study does not report on the working lives of their participants, however 44% report a significant drop in quality of life scores.

*A study from the UK ~ 48 days post-discharge*

A UK based study screened 100 patients, on average 48 days after discharge [3]. They compared participants who required treatment in ICU (n=32) with those who did not (n= 68). Fatigue and breathlessness were the most common symptoms across the board, but the prevalence was higher in ICU patients. Fatigue and breathlessness was reported in 72% and 66% of ICU participants and in 60% and 43% of those who did not require ICU treatment respectively. The researchers also measured psychological distress and found 47% of the ICU participants and 24% of those who did not go to the ICU reported PTSD. They found a clinically significant drop in quality of life scores in 69% of participants who received ICU treatment and in 46% of those who did not [3]. This study explicitly addressed the working lives of their participants: when the survey were conducted 40% of the ICU participants and 85% of those who did not go to the ICU had returned to work [3].

*A study from France ~ 100 days post-discharge*

A study from France conducted screened 120 patients an average of 111 days following admission [4]. Fatigue was reported in 55% of patients, dyspnoea in 42%, loss of memory in 34% and concentration and sleep disorders in 28% and 31%, respectively [4]. Furthermore, the authors compared those who required ICU treatment to those who did not and found no statistically significant differences in the above outlined symptoms [4]. They report that 69% of those participants who had worked prior to hospitalisation, had returned to work and 72% of those who had regular sports activity had resumed, although just under half (46%) did so at reduced capacity physical activity [4].

*Limitations of this research*

There are a number of limitations with the research examples given above. The studies did not account for the potential impact of comorbidities on post-discharge symptoms and there were no control groups. Ideally, we could compare the findings from the COVID-19

patients with people who have been hospitalised and discharged for reasons other than COVID-19; maybe the pandemic itself is having an impact on patients' recovery.

Secondly, there were small numbers of participants in each of the studies making it less likely the results can be generalised to a wider group of people. Furthermore, not all people invited to participate in the studies consented to; some did not want to, some could not be reached. The people who did not take part may have different experiences that are now missing from the data, for example they could have been too unwell to contribute. Finally, all the studies only assessed participants at a single point in time rather than collecting at multiple time points over a number of months which would be more informative.

### What we can tell from existing research

Individuals who have been hospitalised as a consequence of a critical illness often experience poor outcomes, including delayed return to work, when discharged. A systematic review and meta-analysis of 52 studies, including 10,015 people who were previously employed survivors of critical illness examined returned to work data [5]. The review found that 3 months after discharge approximately 64% had returned to work; at 12 months 40% had work and at 60 months 32% were employed. There was no statistically significant difference between those people who were diagnosed with acute respiratory distress syndrome (ARDS) vs non-ARDS diagnosis [5]. The two other coronaviruses, severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) produced long term complications in between 20% and 40% of survivors [1]. Post-discharge persistent symptoms in SARS and MERS included respiratory problems and fatigue up to 6 months after discharge and mental health problems and reduced quality of life at 12 months or more [6].

### Conclusion

In Ireland 3,676 people have been hospitalised because of COVID-19. There is no information on the consequent work status of these individuals. This is also the case on the global stage. There are indications from small scale studies and research on similar diseases

that some individuals hospitalised with COVID-19 will experience delayed return to work. In their [Public Statement](#) on Occupational therapy and rehabilitation of people affected by the COVID-19 pandemic the World Federation of Occupational Therapists (WFOT) call for equal access to rehabilitation for people affected by COVID-19 as a human right. The statement is a call to action to prepare for the surge in demand for occupational therapy as COVID-19 continues to spread around the globe. Scientists in the area are making similar calls but more research is needed to determine the long-term consequences of a COVID-19 hospitalisation and its impact on return to work.

### *Disclaimer*

This document has not been peer-reviewed; it should not replace individual clinical judgement. The views expressed in this document are not a substitute for professional medical advice. The content of this document is correct as of 07/10/2020.

### *Rapid Evidence Search & Summary (RESS)*

Our team of multidisciplinary researchers and clinicians in conjunction with the University of Limerick Library and Information Services have developed a detailed protocol for conducting a Rapid Evidence Search & Summary (RESS) to answer questions submitted to RapidInfo4U. Our RESS protocol uses PICO or PEO methods to refine your question and follows a detailed search procedure capturing guidance documents from governments, institutions and professional bodies; searching clinical and COVID specific repositories; and identifying the most recent reviews and RCTs in the scientific literature using established databases.

## References

1. Geberhiwot, T., Madathil, S., & Gautam, N. (2020, August). After Care of Survivors of COVID-19—Challenges and a Call to Action. In *JAMA Health Forum* (Vol. 1, No. 8, pp. e200994-e200994). American Medical Association.  
<https://jamanetwork.com/channels/health-forum/fullarticle/2770074>
2. Carfi, A., Bernabei, R., & Landi, F. (2020). Persistent symptoms in patients after acute COVID-19. *Jama*, 324(6), 603-605.  
<https://jamanetwork.com/journals/jama/fullarticle/2768351>
3. Halpin, S. J., Mclvor, C., Whyatt, G., Adams, A., Harvey, O., McLean, L., ... & Collins, T. (2020). Postdischarge symptoms and rehabilitation needs in survivors of COVID-19 infection: A cross-sectional evaluation. *Journal of medical virology*.  
[https://onlinelibrary.wiley.com/doi/full/10.1002/jmv.26368?casa\\_token=KY8\\_XJFBtMOAAAAA%3AXRlobBa1Fxs-U7riUSGzD28YLa1JsfCaU5pDYV0W\\_S54rzA-rj-vpHJ07QySyh9np8mnBD1xoCiMz7](https://onlinelibrary.wiley.com/doi/full/10.1002/jmv.26368?casa_token=KY8_XJFBtMOAAAAA%3AXRlobBa1Fxs-U7riUSGzD28YLa1JsfCaU5pDYV0W_S54rzA-rj-vpHJ07QySyh9np8mnBD1xoCiMz7)
4. Garrigues, E., Janvier, P., Kherabi, Y., Le Bot, A., Hamon, A., Gouze, H., ... & Corre, F. (2020). Post-discharge persistent symptoms and health-related quality of life after hospitalization for COVID-19. *Journal of Infection*.  
[https://www.sciencedirect.com/science/article/pii/S0163445320305624?casa\\_token=6dB7P4rYzB8AAAAA:ubV9hUTH6WoVUeZR5ycHEvNJhdmFLm\\_4qk-8XETIxVii7pjrtavH97rbFkMBWbe9IKLcXbry3w](https://www.sciencedirect.com/science/article/pii/S0163445320305624?casa_token=6dB7P4rYzB8AAAAA:ubV9hUTH6WoVUeZR5ycHEvNJhdmFLm_4qk-8XETIxVii7pjrtavH97rbFkMBWbe9IKLcXbry3w)
5. Kamdar, B. B., Suri, R., Suchyta, M. R., Digrande, K. F., Sherwood, K. D., Colantuoni, E., ... & Hopkins, R. O. (2020). Return to work after critical illness: a systematic review and meta-analysis. *Thorax*, 75(1), 17-27. <https://thorax.bmj.com/content/75/1/17>
6. Ahmed, H., Patel, K., Greenwood, D. C., Halpin, S., Lewthwaite, P., Salawu, A., ... & Sivan, M. (2020). Long-term clinical outcomes in survivors of severe acute respiratory syndrome and Middle East respiratory syndrome coronavirus outbreaks after hospitalisation or ICU admission: a systematic review and meta-analysis. *Journal of Rehabilitation Medicine*, 52(5). <https://www.medicaljournals.se/jrm/content/abstract/10.2340/16501977-2694>