Heart, Lung and Circulation (2023) **32**, 278
1443-9506/23/$36.00
https://doi.org/10.1016/j.hlc.2023.01.004

Long COVID and Heart Disease: National Heart Foundation Submits Priorities to Parliament

Carol Kilkenny, MSc, BSc
Amanda K Buttery, BAppSc, MSc, PhD, GAICD

At the end of 2022, the Parliament of Australia launched an enquiry into long COVID and repeated COVID-19 infections. With more than 11 million confirmed cases of COVID-19 in Australia since the start of the pandemic, and an estimated prevalence of long COVID of 5%, at least 550,000 people may currently be living with long COVID [1,2].

International evidence has established that:

- people surviving COVID-19 infection have more cardiovascular events regardless of their risk factors for cardiovascular disease [3,5,6]
- people with a heart condition are more likely to die following COVID-19 infection [4]
- COVID-19 infection severity is correlated with an increased risk of cardiovascular complications including blood clots, heart failure and stroke [4,5]
- An increased risk of cardiovascular events (including heart attacks, blood clots and stroke) has been observed up to 12 months after infection [3,5].

The repercussions of the COVID-19 pandemic are therefore likely to unfavourably impact the nation's cardiovascular health over the next decade with a related increased burden on health services as more cases emerge.

The Heart Foundation's submission outlined 15 recommendations including the need to:

- improve access to cardiovascular imaging services (e.g. echocardiography and cardiac magnetic resonance imaging) to diagnose myocarditis, pericarditis, cardiomyopathy and other COVID-related heart problems
- increase funding for – and access to – dedicated heart failure clinics and cardiac rehabilitation services to accommodate increasing demand
- make the current temporary MBS item for Heart Health Checks available permanently.

The Heart Foundation also recommended more investment in research into COVID-19 infection and cardiovascular health, particularly in women, people in culturally and linguistically diverse communities, and First Nations peoples. Improving long-term surveillance of COVID-related cardiovascular outcomes though mechanisms like the National Cardiac Registry and longitudinal studies (e.g. the 45 and Up Study) may also help inform patient care and future vaccine design.

Read more about the inquiry and the full Heart Foundation submission (#284) here: https://www.aph.gov.au/Parliamentary_Business/Committees/House/Health_Aged_Care_and_Sport/LongandrepeatedCOVID/Submissions

References

[1] WHO Health Emergency Dashboard. WHO (COVID-19) Homepage. Australia Situation. covid19.who.int/region/wpro/country/au. [accessed 15.1.23].
[2] NSW Government. Long COVID. www.nsw.gov.au/covid-19/testing-managing/long-covid. [accessed 17.11.22].
[3] Xie Y, Xu E, Bowe B, Al-Aly Z. Long-term cardiovascular outcomes of COVID-19. Nature Medicine. 2022;28(3):583–90. https://doi.org/10.1038/s41591-022-01689-3.
[4] Elliott J, Bodinier B, Whitaker M, et al. COVID-19 mortality in the UK Biobank cohort: revisiting and evaluating risk factors. Eur J Epidemiol. 2021;36(3):200–309.
[5] Katsoularis I, Fonseca-Rodríguez O, Farrington P, et al. Risks of deep vein thrombosis, pulmonary embolism, and bleeding after covid-19: nationwide self-controlled cases series and matched cohort study. BMJ. 2022;377:e069590.
[6] Davis H, McCorkell L, Vogel J, Topol E. Long COVID: major findings, mechanisms and recommendations. Nat Rev Microbiol. 2023. https://doi.org/10.1038/s41579-022-00846-2.