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# Prolonged SARS-CoV2-2019 PCR positivity: a challenge for Australian clinicians

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Abstract

Workplace presenteesim has been implicated in Australian COVID-19 outbreaks[1]. The NSW Department of Health has imposed necessarily stringent clearance criteria for "high risk" workplaces and living environments including negative "swabs" for SARS-CoV2-2019[2]. Our experience with prolonged viral shedding in the COVID Care at Home unit demonstrates clearance will present a clinical and logistic challenge for patients and clinicians.

The NSW Department of Health has taken necessarily stringent steps to reduce the risk of workplace outbreaks as we progress along Australia's flattened curve. Currently, two nasopharyngeal samples, polymerase chain reaction (PCR) negative for SARS-CoV2-2019 are required before asymptomatic individuals can return to "high-risk" workplaces such as hospitals, schools and prisons or close proximity living arrangements like residential aged care facilities, military barracks and group homes.[2]

In Newcastle, existent Hospital in the Home (HiTH) services have been redeployed as part of a tiered pandemic response under the banner *COVID Care at Home* (CCaH). CCaH offers daily telehealth monitoring and efficient "clearance" certification for patients in isolation or excluded from workplaces. In our experience with 45 COVID confirmed cases admitted to CCaH increased PCR surveillance also uncovered cases of prolonged RNA detection. One passenger from the vessel *Ruby Princess* returned PCR positive fifty-two days after her initial swab and more than sixty days after the first day of symptoms.

A review of international data showed that PCR positivity usually persists for between 20 to 30 days regardless of symptomology.[4] Cases of SARS-CoV2-2019 RNA detection persisting for 60 or even 80 days have been recorded in the literature.[5,6] In the case of our patient the ongoing exclusion from the workplace created significant psychological and financial burden due to lack of leave entitlement. Similar policies in countries with even less worker-security, such as the United States, are likely to have even greater workforce impact. To tackle the issue of prolonged positivity we have convened a panel of clinicians in the disciplines of infectious diseases, population health and microbiology to make informed decisions about patients with prolonged viral RNA detection in regard to their ongoing need for isolation and exclusion from high-risk environments.

PCR positivity is not synonymous with infectivity.[7,8] Regardless, to maintain the good results Australia has enjoyed thus far we will need to persevere with a high level of vigilance. Making informed and safe decisions about clearance for high risk environments and supporting patients with prolonged exclusions from their workplace will be an ongoing challenge for Australian clinicians during the COVID pandemic.

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