The Medical Journal of Australia • MJA
MEDIA RELEASE

ROYAL MELBOURNE HOSPITAL'S RESPONSE TO COVID-19 INFECTIONS IN HEALTH CARE WORKERS

EMBARGOED UNTIL 12:01am Monday 16 November 2020

ROYAL Melbourne Hospital endured the largest institutional outbreak of COVID-19 in health care workers in Australia to date, but rapidly controlled its spread by using a multidimensional approach adapted to their particular settings and demographics, according to the authors of a Perspective published online by the *Medical Journal of Australia*.

Between 1 July and 31 August 2020, 262 cases of COVID-19 were identified among Royal Melbourne Hospital staff. Fifteen individuals (5.7%) required inpatient care and 13 (4.9%) received care by a hospital in the home service. Two were admitted to the intensive care unit (ICU), none requiring mechanical ventilation, with no deaths. Nurses were most commonly affected, followed by support staff (such as food and cleaning services) and doctors (17/21 of these being doctors-in-training).

"The Royal Park Campus had the highest number of staff with COVID-19, making up 40.8% (n = 107) of health care worker infections at the Royal Melbourne Hospital, despite this campus constituting about 10% of the total staff workforce at the hospital," wrote the authors, led by Professor Kirsty Buising, infectious diseases physician at RMH, the University of Melbourne, and the Peter Doherty Institute for Infection and Immunity.

"Between 12 and 18 July, the Royal Park Campus received a large number of patients from external residential aged care facilities, not affiliated with the Royal Melbourne Hospital, with COVID-19 outbreaks. These residents were COVID-19-positive at admission and were managed with appropriate infection precautions throughout. COVID-19 cases among staff rapidly escalated across all six wards at the campus after 16 July, peaking on 27 July.

"Our response was necessarily iterative and pragmatic and advice often pre-dated formal state and federal recommendations," Buising and colleagues wrote.

The authors identified a number of key factors that shaped their responses, beyond a focus on personal protective equipment (PPE):

Critical burden

"We hypothesised that large numbers of patients in confined spaces may have created a high density of droplets, aerosols and environmental contamination," they wrote.

"This triggered a detailed assessment of ward physical layout, including the possible role of patient placement and air circulation. We elected to use single rooms wherever possible and to physically space infected patients by closing beds on the ward.

"The intensity of transmission in some wards led to a decision to close wards and move some patients to other health care services.

"Further, we adopted the use of N95 masks for staff working in areas with large numbers of patients with confirmed or suspected COVID-19."

Testing

“The availability of rapid and accessible testing for staff was critical to informing real-time outbreak management,” the authors wrote.

“Rapid availability of data informed our daily incident management meetings and enabled prompt decision making using the best possible information.”

Support programs

“The importance of staff communication and wellbeing cannot be understated,” Buising and colleagues wrote.

“Many staff reported physical and mental fatigue and stress during these outbreaks. In addition, workforce shortages meant that staff were taking on extra shifts at short notice and working in unfamiliar roles.

“Accordingly, access to employee support programs was an important element of this response.”

All *MJA* media releases are open access and can be found at: https://www.mja.com.au/journal/media

Please remember to credit *The MJA*.

The *Medical Journal of Australia* is a publication of the Australian Medical Association.

The statements or opinions that are expressed in the MJA reflect the views of the authors and do not represent the official policy of the AMA or the MJA unless that is so stated.

CONTACTS: Professor Kirsty Buising
Infectious diseases physician
Royal Melbourne Hospital
Email: kirsty.buising@mh.org.au