

The Medical Journal of Australia • MJA

MEDIA RELEASE

CORONAVIRUS UPDATE: RAPID SHARING OF DATA VITAL

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THE Australian laboratory which was the first to isolate the COVID-19 virus outside China has shared its methods in a research letter published online today by the *Medical Journal of Australia* as part of the Journal's rapid review policy for coronavirus data.

Professor Mike Catton, Deputy Director of the Peter Doherty Institute for Infection and Immunity, described the case of a 58-year-old man who arrived in Melbourne from China on 19 January 2020 and was admitted to hospital on 24 January with "symptoms of fever, cough, and progressive shortness of breath".

"A nasopharyngeal swab and sputum taken on presentation tested positive for SARS-CoV-2," Catton and colleagues wrote. "Inoculation with material from the initial nasopharyngeal swab led to the isolation of SARS-CoV-2 virus in culture. Electron microscopy of the supernatant confirmed the presence of virus particles displaying morphology characteristic of the family *Coronaviridae*."

"Whole genome sequencing of the viral isolate ... revealed that the genome sequence from this patient exhibited >99.99% sequence identity to other publicly available SARS-CoV-2 genomes at that time in late January 2020."

"Within 24 hours of isolation, the first Australian viral isolate of SARS-CoV-2 was shared with domestic and international reference laboratories and major North American and European culture collections."

The Doherty Institute researchers also shared the information with the World Health Organization, the GenBank sequence database, and the Global Initiative of Sharing All Influenza.

"A major principle of our laboratory response in Australia was to immediately share the viral isolate with the WHO, and we are continuing to share live virus with other agencies, both domestically and internationally, involved in the development and testing of therapeutic agents and vaccines," Catton and colleagues wrote.

"We believe this is an essential function of public health reference as well as research laboratories, and strongly encourage others to use a similar approach. The ability to propagate SARS-CoV-2 and rapidly share the isolate globally represents an important step in collaborative scientific efforts to diagnose, prevent and treat this public health emergency."

A second research paper was also published by the Journal today.

A small-sample observational study of 31 patients with mild COVID-19 was conducted in designated hospitals in Wuhu, Anhui province, China, from 24 January to 24 February 2020.

Eleven out of 31 patients received corticosteroid treatment for COVID-19. Statistical analysis showed no association between the virus clearance time, length of hospital stay, and duration of symptoms with corticosteroid use. The authors also found prolonged virus clearance in patients with chronic hepatitis B.

"Corticosteroids are widely used in patients with COVID-19, and there was no demonstrable association with therapy provided in patients without acute respiratory distress syndrome," they concluded.

Laureate Professor Nick Talley, editor-in-chief of the *MJA*, said the two articles were published pre-print, and would be updated and published in the next available print edition of the Journal.

"To ensure rapid and broad dissemination, the article preprints have been uploaded online to mja.com.au and a commentary has been published in *InSight+*," wrote Professor Talley.

"We have also shared the information with the WHO with the authors' permission."

“We will proceed to publish the papers in full at the earliest opportunity on-line early and in print, after further review (as needed) and our usual stringent structural editing. Future papers on the coronavirus will be assessed on their merit and if deemed important will similarly undergo rapid review.”

Please remember to credit *The MJA*.

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