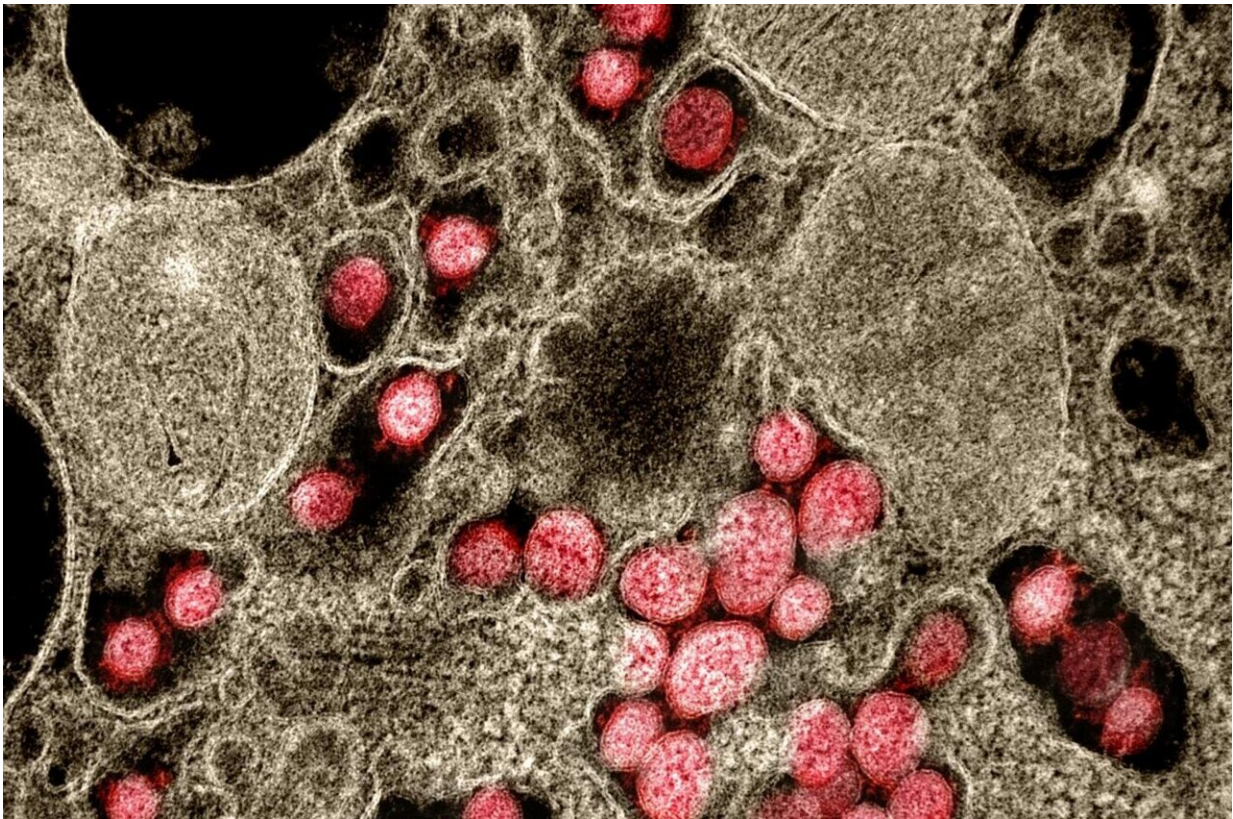


'Overly stringent' criteria early in pandemic led to missed diagnoses of COVID-19

June 16 2021



Transmission electron micrograph of SARS-CoV-2 virus particles isolated from a patient. Credit: NIAID

Research published today in the *Journal of General Virology* has identified missed cases of SARS-CoV-2 by retrospective testing of

throat swabs.

Researchers at the University of Nottingham screened 1,660 routine diagnostic specimens which had been collected at a Nottingham hospital between 2 January and 11 March 2020 and tested for SARS-CoV-2 by PCR. At this stage of the pandemic, there was very little COVID-19 testing available in hospitals, and to qualify [patients](#) had to meet a strict criterion, including recent travel to certain countries in Asia or contact with a known positive case.

Three previously unidentified cases of SARS-CoV-2 infection were identified by the retrospective screening, including one from a 75-year-old female whose positive swab was collected on 21 February 2020. This patient, referred to as Patient 1, died on 3 March; two days before the first official death from COVID-19 was recorded in the UK. Patient 1 had not recently traveled abroad or been in contact with anyone known to have COVID-19 and so did not qualify for a PCR test at the time. In addition to being the first death, the researchers believe that Patient 1 is also the earliest described case of community transmission in the UK.

The further newly-identified cases occurred in a 64-year-old male and a 66-year-old male, both of whom showed signs of chest infections, and both of whom recovered. The samples were collected on 2 March and 8 March 2020 respectively. International travel was only removed as an essential criterion for a SARS-CoV-2 test on 12 March 2020.

The research group collaborated with the COVID-19 Genomics UK Consortium (COG-UK) to sequence the SARS-CoV-2 isolates collected from the swabs used in the study, and found evidence of community transmission in Nottingham as early as February 2020. Through this [genome sequence data](#), the group identified multiple introductions of the virus into Nottingham during late February and the month of March, many of which were a distinct lineage of the virus which dominated

early phases of the outbreak within the region.

Based on the findings, the researchers suggest that testing should have been made available to [hospital patients](#) with compatible symptoms but no travel history earlier in the pandemic response.

More information: Joseph G. Chappell et al, Retrospective screening of routine respiratory samples revealed undetected community transmission and missed intervention opportunities for SARS-CoV-2 in the United Kingdom, *Journal of General Virology* (2021). [DOI: 10.1099/jgv.0.001595](#)

Provided by Microbiology Society

Citation: 'Overly stringent' criteria early in pandemic led to missed diagnoses of COVID-19 (2021, June 16) retrieved 11 September 2024 from <https://medicalxpress.com/news/2021-06-overly-stringent-criteria-early-pandemic.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.