### COMMENT LETTERS

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# **COVID-19 Outbreak** Associated with Air Conditioning in Restaurant, Guangzhou, China, 2020

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To the Editor: Lu et al. (1) describe the indoor airborne spread of COVID-19 (coronavirus disease) facilitated by a type of standard, wall-mounted, ductless air conditioner (AC) used in most countries. These units are low-cost in comparison to ducted AC units, which can cost 3 times as much to purchase, install, and operate. Ductless units cool and dehumidify indoor air but have little ability to filter or remove airborne contaminants.

A wall-mounted ductless system blows air directly onto those closest to it, potentially disseminating infectious droplets or aerosols along the airflow. Lu et al. use arrows to point out the airflows emanating from and returning to the AC unit, delineating a possible trajectory of putative airborne droplets. This trajectory coincides with the seating distribution of other persons at the restaurant who later became ill (1). We agree that the AC probably contributed to the upstream and downstream airborne spread of the virus.

The type of AC system required to mitigate airborne transmission is neither affordable nor architecturally feasible for many buildings or regions. To prevent the spread of coronavirus disease in indoor spaces, we need work-around solutions in addition to distancing and fresh air exchange. Viable, low-cost possibilities might include operating AC on low fan settings and installing units near the ceiling, which would channel airflow towards the ceiling instead of directly onto patrons. Other methods might include installing high-efficiency particulate air filters, ultraviolet germicidal irradiation (which can disinfect some airborne coronaviruses such as mouse hepatitis virus and Middle Eastern respiratory syndrome coronavirus) (2), or a combination of these methods.

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# Nonpharmaceutical Measures for Pandemic Influenza in Nonhealthcare Settings— International Travel-Related Measures

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To the Editor: Ryu et al. reviewed international travel-related measures for pandemic influenza, including screening travelers for infection (1). Although the authors did not review the performance of individual screening tools, Ryu et al. reported that no evidence exists to indicate that screening has any substantial effect on preventing the spread of pandemic influenza.

However, government officials continue to call for international airport screening guidelines as a crucial measure to control coronavirus disease. Therefore, differentiating between screening tools with poor technical performance and those approved for fever detection is worthwhile. For example, the Food and Drug Administration (FDA) states that thermal scanners should not be used as standalone tools for fever detection (2). FDA instead recommends that officials use handheld infrared thermometers as screening tools.

Thermal scanners use long-wave infrared to generate heat map images of persons and objects. This technology records surface temperature; however, fever determination requires a measurement of core body temperature. A study with 1,109 participants showed a correlation with core temperature of merely  $R^2 = 0.41$  for the most commonly used thermography region, the forehead (3). Performance of  $R^2 = 0.69$  was achieved only with overlaid standard camera video and complex free-form deformation models. Participants were assessed individually, after being seated for 15 minutes, without topical cosmetics or eyewear, at a stable ambient temperature and humidity, and without nearby infrared radiation sources. These conditions are rarely, if ever, met in the airport setting.

Despite this evidence, costly thermal scanners have been deployed at airports in many countries. In contrast, inexpensive infrared thermometers are FDA approved for core temperature approximation. At their current performance, thermal scanners must be clearly distinguished from infrared thermometers, and thermal scanning should not be recommended for fever screening.

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## *Clostridiodes difficile* in COVID-19 Patients, Detroit, Michigan, USA, March– April 2020

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To the Editor: Sandhu et al. (1) reported 9 patients who were co-infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and Clostridioides difficile. C. difficile infection (CDI) can be a co-occurrence or result of antimicrobial drug overuse and is potentially a complication of coronavirus disease (CO-VID-19). We report a 52-year-old man with hypertension who had fever, respiratory symptoms, abdominal pain, and diarrhea for 3 days. At admission to Saint Michael's Medical Center (Newark, New Jersey, USA), he had a temperature of 101.8°F but was otherwise hemodynamically stable. He had an elevated absolute lymphocyte count (700 cells/µL), indicating lymphopenia. He tested positive for SARS-CoV-2 RNA by reverse transcription PCR and had elevated inflammatory markers on blood profile. He tested positive for C. difficile toxin and antigen at admission. He did not