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Authors' response

We appreciate Gouda and Goudra¹ for critical reading of our article² and thank them for raising the issue of COVID-19 diagnosis. It has been correctly pointed out that the RT-PCR cannot diagnose all cases of SARS-CoV-2 infection. As a chest computed tomography (CT) may detect changes before PCR positivity in some cases and therefore, has the potential to serve as a valuable adjunct diagnostic tool, the non-specific nature of such changes in a low prevalence setting is destined to have a low positive predictive value. Investigation of the passengers on cruise ship Diamond Princess (cruise number M003 with cases of pneumonia-like illness) is worth considering in this context, where it was observed that 61 per cent of the cases had lung opacities and 20 per cent of symptomatic patients had negative CT scans³. In brief, chest CT may supplement, but does not substitute RT-PCR for the diagnosis of COVID-194.

In unknown disease outbreak situation or newly recognized clusters of symptomatic cases, different case definitions are used for different purposes, such as disease surveillance, clinical management or drug trials. Likewise, for COVID-19, case definitions have included suspected cases, probable cases and confirmed cases. Moreover, case definitions may vary between countries and may even change from time to time in the same country. The database we used for our study was originally developed to track laboratory-confirmed COVID-19 cases out of the symptomatic healthcare workers. As per the case definition of COVID-19, a confirmed case is 'any person meeting the laboratory criteria' 5,6 and India follows the same 7. This definition does

not hinge upon other investigation results and conforming to the same, our investigation was at par with internationally acceptable standard practices. Adhering to this definition further allowed us to keep uniformity across the study population (cases and controls) and minimize selection biases.

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References

- Gouda D, Goudra B. Effect of quantitative real-time RT-PCR reaction sensitivity in determining the efficacy of HCQ prophylaxis for COVID-19. *Indian J Med Res* 2020; 152: 134.
- Chatterjee P, Anand T, Singh KJ, Rasaily R, Singh R, Das S, et al. Healthcare workers & SARS-CoV-2 infection in India: A case-control investigation in the time of COVID-19. Indian J Med Res 2020; 151: 459-67.
- 3. Inui S, Fujikawa A, Jitsu M, Kunishima N, Watanabe S, Suzuki Y, *et al.* Chest CT findings in cases from the cruise ship "Diamond Princess" with coronavirus disease 2019 (COVID-19). *Radiol Cardiothorac Imaging* 2020; 2: e200110.

- 4. Hope MD, Raptis CA, Shah A, Hammer MM, Henry TS, six signatories. A role for CT in COVID-19? What data really tell us so far. *Lancet* 2020; *395*: 1189-90.
- European Centre for Disease Prevention and Control. Case Definition for Coronavirus Disease 2019 (COVID-19), as of 29 May 2020. Available from: https://www.ecdc.europa. eu/en/covid-19/surveillance/case-definition, accessed on June 13, 2020.
- Centers for Disease Control and Prevention. Coronavirus Disease 2019 (COVID-19): 2020 Interim Case Definition, Approved April 5, 2020. Atlanta: CDC; 2020.
- 7. Ministry of Health & Family Welfare, Government of India. Guidelines for notifying COVID-19 affected persons by Private Institutions. Available from: https://www.mohfw.gov.in/pdf/GuidelinesfornotifyingCOVID-19affectedpersonsbyPrivateInstitutions.pdf, accessed on June 13, 2020.