

## Reply to Kao and Liaw

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### **Text of the response:**

The letter by Kao and Liaw raises some interesting questions, none of which question the results and conclusions of our study. First, they recommend the use of fecal specimens to avoid, in their words, an uncertainty in the accuracy of RT-PCR from respiratory samples. Although it has been reported that fecal samples might provide increased sensitivity to detect SARS-CoV-2 at later stages of infection, no evidence suggests that data collected in this way are more accurate or relevant in terms of diagnosis or transmission.

Secondly, Kao and Liaw raise the issue of the time elapsed between symptom onset and RT-PCR testing. This is a well-known confounder in viral load comparisons, and as such, was clearly acknowledged in our study. We showed that the period between symptom onset and diagnosis were not significantly different among the groups studied. In fact, there were no cases with more than 7 days between the RT-PCR test and symptom onset in the population under 10 years old, and the proportion was negligible for the older population.

Finally, we share the interest of Kao and Liaw about the possible association of respiratory viral loads with the expression of host genes related to mucosal immunity. The search for these associations was not within the scope of our study, but we agree they could be informative regarding the mechanisms that control respiratory viral loads.

In conclusion, by evaluating the SARS-CoV-2 viral loads of 45,318 respiratory samples from COVID-19 patients using a validated RT-PCR method, our study clearly demonstrates that infants younger than 6 months have higher viral loads than any other age group.