



Reply to Mungmunpantipantip and Wiwanitkit

From the Authors:

We thank Mungmunpantipantip and Wiwanitkit for their interest in our recent work published in the *Journal* (1). In our randomized clinical trial (RCT) study, we concluded that both the CoronaVac and BNT162b2 vaccines boosted antibody responses in CoronaVac-immunized individuals, but BNT162B2 was markedly superior in immunogenicity. Although Mungmunpantipantip and Wiwanitkit commented that an inactivated vaccine should not be used as a booster or as a booster to standard two-dose regimens, we believe that inactivated vaccines such as CoronaVac are still playing an essential role in controlling the coronavirus disease (COVID-19) outbreak.

First, the supply of mRNA vaccines cannot meet global needs, and the ultralow (-80°C) “cold-chain” requirements may limit their use in many developing countries. Second, we observed that CoronaVac vaccines elicit T-cell responses at least as potent as RNA vaccines (2) and these should provide some protection against severe disease outcomes. Finally, there is a minority of individuals who develop adverse reactions to RNA vaccines, and alternatives are needed.

They also raised the question of whether age, sex, smoking, and history of previous COVID-19 illness may have confounded the outcomes in our study. Our study participants were recruited from a previous study of immunogenicity of the two vaccines 1 month after the second dose, and patient recruitment criteria included absence of prior severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection (2). Furthermore, all patients had blood collected at recruitment and were shown to be sero-negative. This cohort has been followed up since, and none of them had diagnosed SARS-CoV-2 infection. Given the low rates of SARS-CoV-2 transmission in Hong Kong during the period of the study, the likelihood of undiagnosed asymptomatic infection is low. We did in fact confirm that there were no significant differences in age, sex, smoking, and other demographic factors between the two groups, and the data was provided in the supplementary information to our manuscript (<https://www.mect.cuhk.edu.hk/paper/Supporting-Information.pdf>). ■

Author disclosures are available with the text of this letter at www.atsjournals.org.

Chris Ka Pun Mok, Ph.D.
David S. Hui, M.B.B.S., M.D.
The Chinese University of Hong Kong
Hong Kong, China

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Supported by grants from the Health and Medical Research Fund Commissioned Research on the Novel Coronavirus Disease (COVID-19), Hong Kong SAR (COVID1903003; COVID190126).

Author Contributions: Conception and design, analysis and interpretation, and preparation of the manuscript: C.K.P.M., D.S.H., and M.P.

Originally Published in Press as DOI: 10.1164/rccm.202201-0221LE on May 12, 2022

Two Doses of CoronaVac” (1). Mok and colleagues concluded that “both CoronaVac and BNT162b2 vaccines boosted antibody responses in CoronaVac immunized individuals but BNT162B2 was markedly superior in immunogenicity” (1). We agree that any coronavirus disease (COVID-19) vaccine can induce protection against COVID-19. During the early phase of emerging COVID-19, the new inactivated COVID-19 vaccine was first developed and could provide hope for disease management (2). However, the situation changes as time passes. The classical inactivated vaccine might have a preventive role, but the decreased efficacy might be owing to emerging variants of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

The current report gave new data indicating a limited role of the inactivated COVID-19 vaccine for use as a booster vaccine. On the basis of the present report, it might imply that the inactivated vaccine should not be used as a third dose as a booster, and it might further call for attention to reconsider its use as standard two-dose regimen. Nevertheless, it should be noted that there are still some factors that might affect the observations in the present report by Mok and colleagues. According to a recent report by Şenol Akar and colleagues (3), there are several factors that might affect response to the inactivated COVID-19 vaccine. Age, sex, smoking, and history of previous COVID-19 illness are important determinants for immune response to the vaccine (3). If there is an additional analysis on those possible confounding factors in the report by Mok and colleagues, it might give a clearer view on utility of the vaccine. ■

Author disclosures are available with the text of this letter at www.atsjournals.org.

Rujittika Mungmunpantipantip, Ph.D.*
Private Academic Contulant
Bangkok, Thailand

Viroj Wiwanitkit, M.D.
Dr D Y Patil University
Pune, India

ORCID IDs: 0000-0003-0078-7897 (R.M.); 0000-0003-1039-3728 (V.W.).

*Corresponding author (e-mail: rujittika@gmail.com).

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Malik Peiris, D.Phil.*
The University of Hong Kong
Hong Kong, China

ORCID IDs: 0000-0003-4382-2445 (D.S.H.); 0000-0001-8217-5995 (M.P.).

*Corresponding author (e-mail: malik@hku.hk).

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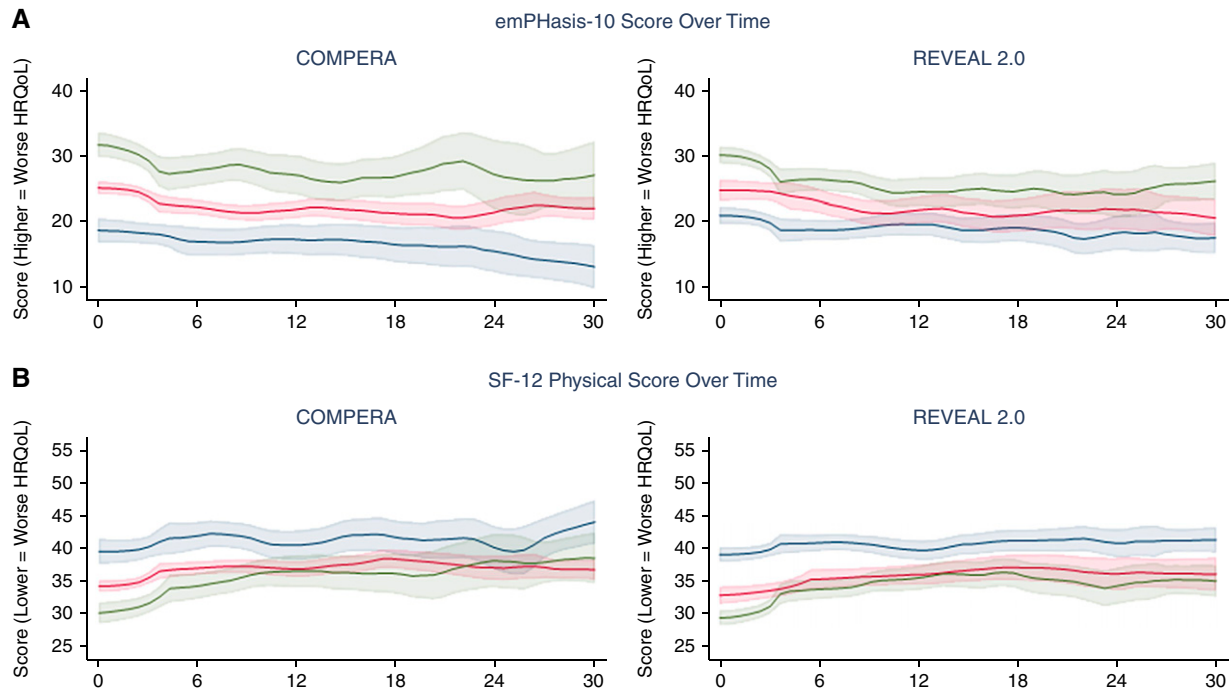
Erratum: Prediction of Health-related Quality of Life and Hospitalization in Pulmonary Arterial Hypertension: The Pulmonary Hypertension Association Registry

The letter by Min and colleagues (1), published in the March 15, 2021 issue of the *Journal*, relies in part upon data

provided by the Pulmonary Hypertension Association Registry (PHAR). After the article had been published, the PHAR notified investigators who had used their data that an error had occurred when they had calculated the composite scores of the Medical Outcome Study Short Form-12 (SF-12) physical and mental components. The distributed datasets did not accurately reflect scores reported by participants: the coding error failed to reverse code responses for four of the twelve SF-12 questions.

Once the error was discovered by the PHAR team, they notified investigators who had used their data and provided updated corrected datasets. Min and colleagues then extracted the new SF-12 physical and mental scores from the corrected dataset and performed the analysis again. The authors informed the *Journal* that although there were small changes in the effect estimates, the article's conclusions have not changed. However, corrections have been made to the text of the letter, the table, and the figure. Two new panels (1B and 1C) have been added to the figure: panel 1A remains unchanged; the former panel 1B is unchanged but has been relabeled panel 1D.

For the convenience of our readers, the *Journal* is replacing the online version of the article with a corrected version. In addition, a document showing all the changes to



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