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Coronavirus disease 2019 (COVID-19) infection of healthcare personnel after complete COVID-19 vaccination

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To the Editor—We would like to share our ideas on the recent article, "Healthcare-associated transmission of severe acute respiratory coronavirus virus 2 (SARS-CoV-2) among Thai healthcare personnel who receive 2 doses of a coronavirus disease 2019 (COVID-19) vaccine: A call for considering a booster dose."1 Apisarnthanarak et al proposed that "HCP were at extremely high risk for healthcare-associated SARS-CoV-2 transmission despite receiving 2 doses of COVID-19 ... suboptimal immune response following CoronaVac, particularly after day 60." The COVID-19 infection of healthcare personnel might occur despite complete vaccination. There are many possible causes of vaccine failure. Apisarnthanarak et al proposed the poor immunogenicity of the vaccine, which is an important factor. Different kinds of vaccines have different immunogenicity mechanisms and different levels of effectiveness. In addition, the temperature control of vaccine storage and distribution is a forgotten issue. Thailand is a tropical country where local temperatures are very hot, and vaccine might not be well kept or stored at the recommended temperature. In addition, the vaccination technique can also cause vaccine failure; a recent report from Thailand detailed complications of vaccination due to poor administration techniques.² Finally, good environmental control in clinical wards and the self-prevention

practice (eg, face mask compliance) among employees after vaccination are also very important considerations. The belief or misinformation that vaccination absolutely prevents severe infection might lead to careless infection prevention behavior.

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