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Letter to the Editor

Management and investigation of individuals with an increased risk of COVID-19 transmission and infection



Sir,

We read with interest the article by Cheng et al.¹ So far, COVID-19 pandemic prevention efforts in Taiwan have been successful, and there is no large-scale community transmission. Most cases have been imported rather than caused by local transmission. There are two issues regarding the management and investigation of individuals with relatively increased risks of infection. First, we believe that during the surge in cases in the pandemic, health care workers (HCWs) security and preservation of human resources are important. The management of HCWs is an important means of safeguarding the medical system in the face of large-scale and rapidly emerging pandemic. HCWs often have the opportunity to go abroad for international conferences or travel. Regardless of the behavior of HCWs (in regard to the improper wearing and taking-off of personal protective equipment), it's a significant problem for HCWs to go abroad during the surge of pandemic, especially to those highly epidemic countries. The main reason for this is that, in the event they are infected abroad (so-called HCW "non-occupational exposure"), there are risks of transmission to patients for whom the HCWs are caring upon returning to work, especially when the HCWs are

asymptomatic or pre-symptomatic.² Once an in-hospital cluster event occurs, the patients leave the hospital in a panic, and more potentially infected people will spread the virus. Therefore, predicting the rise of epidemic and timely personnel control are important steps for ensuring that the medical system won't collapse. When HCWs are exhausted and stressed, the risk of error increases. Rotation of staff to ensure sufficient manpower is an important way to reduce the risk of misconduct and psychological stress.³ (see Table 1). Second, good transmission route investigations and close-contact tracing have been carried out in Taiwan.⁴ Some of the contacts have been diagnosed with virologically confirmed SARS-CoV-2 infection, and some of these contacts have transmitted the infection (when they were asymptomatic or pre-symptomatic) to index cases. However, there are more close contacts who have not been infected, even household contacts, so we can investigate why those close contacts were able to remain uninfected as well as which behaviors or manners are effective in preventing infection. If the serological method is used, and the possibility of infection is excluded among contact, their preventive measures will be useful guide for prevention efforts. This will help us slow down the spread of disease before vaccines and medicines are available.

Table 1 The characteristics of the COVID-19 outbreak in Taiwan that justify forbidding international travel of HCWs in the beginning of the pandemic.

1. Geographically short distance to the pandemic source
2. Rapid surge of this novel SARS-CoV-2 pandemic
3. Possibility of viral transmission from infected but asymptomatic or pre-symptomatic returning HCWs to inpatients and colleagues
4. For the first-round HCWs who are facing the novel pandemic and caring for patients, it is psychologically good for them to know that their colleagues will return and take over their duties within a reasonable period of time.

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Declaration of Competing Interest

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