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Surveillance for coronavirus diseases 2019 (COVID-19) among health care workers at a medical center in Taiwan, March to August 2020



By August 15, 2020, the total numbers of confirmed coronavirus disease 2019 (COVID-19) cases exceeded 21 million, with more than 760,000 deaths globally.¹ In contrast, the timely activation of the Central Epidemic Command Center to start border quarantine, isolation, and contact tracing promptly put the overall epidemic situation under control in Taiwan,² with only a total of 482 confirmed cases and 7 deaths.¹

Unfortunately, some media and scholars (whose expertise is not infectious diseases) kept trying to raise unjustified fear, uncertainty, and doubt on the success of COVID-19 control in Taiwan. They insisted that the numbers of SARS-CoV-2 tests performed in Taiwan was too little to be convincing (although, in fact, 84,446 tests had been performed, with only 482 cases detected by August 15, 2020).¹ They went so far to argue that mass screening for SARS-CoV-2 virus and/or anti-SARS-CoV-2 antibodies should be performed in order to discover asymptomatic SARS-CoV-2 carriers which have been missed under the current community surveillance for COVID-19 by Taiwan Centers for Disease Control.³ In contrast, the consensus among infectious disease experts is that the overwhelming majority of so-called “asymptomatic” SARS-CoV-2 cases just represents a transient, pre-symptomatic period during the early stage of acute SARS-CoV-2 infections,⁴ rather than a long-lasting chronic infections similar to human immunodeficiency virus (HIV), hepatitis B virus (HBV), or hepatitis C virus (HCV).

Healthcare workers (HCWs) have been singled out, by mass screening supporters, as a high-risk group which are particularly in need to be mass-screened for the presence of SARS-CoV-2 virus or anti-SARS-CoV-2 antibodies, despite the fact that all Taiwanese HCWs have been fully protected by personal protective equipment (PPE) including N95 mask and protective clothing since the beginning of the pandemic. If HCWs are indeed at high risk of contracting and carrying SARS-CoV-2 virus, then the current HCWs virological surveillance for COVID-19 should be able to detect SARS-CoV-2-positive cases among HCWs. Therefore, we reviewed the HCWs surveillance results at our hospital.

Our hospital is one of major medical centers designated for COVID-19 treatment in Taipei, and successfully treated 29 laboratory-confirmed COVID-19 cases during the period from February 4, 2020 to July 6, 2020.⁵ Since March 31, 2020, in consistent with Taiwan Central Epidemic Command Center’s HCWs surveillance policy,⁵ all HCWs who developed fever or any respiratory symptoms were required to be tested for SARS-CoV-2 regardless of the presence of occupational exposure history or not. By August 15, 2020, a total 195 HCWs (10% of the total hospital work force) had been tested in our center, including the 75 who were tested twice. However, all these SARS-CoV-2 test results from HCWs were negative.

Our results provided a strong evidence that the level of PPE used in Taiwanese hospitals is adequate for HCW protection against SARS-CoV-2. Moreover, our results did not

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support the need of mass screening for SARS-CoV-2 among HCWs in Taiwan.

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Declaration of competing interest

All the authors declare that they have no relevant conflicts of interest related to this article.

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