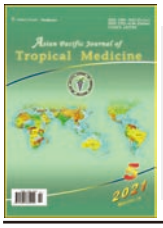

Letter to Editor

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Successful containment of a COVID-19 outbreak in Bach Mai Hospital by prompt and decisive responses

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In low-and middle-income countries, tertiary care hospitals frequently face an extremely heavy workload and shoulder an even heavier burden during the COVID-19 pandemic. Bach Mai Hospital (BMH), one of the leading tertiary hospitals in Vietnam, is on the frontline in the fierce battle against COVID-19. This letter aims to describe how BMH tackles the COVID-19 outbreak in the hospital-level battle, which could support policymakers in time-management and well-preparation for this unpredictable pandemic.

On March 20, 2020, the Vietnam Ministry of Health announced two COVID-19 patients who work as nurses at one department of BMH. Their epidemiological history was unclear because of an unknown source of transmission. Immediately, BMH blocked some buildings/departments where the two patients worked, and the whole hospital was disinfected[1]. Various measures were applied to reduce the traffic at the hospital including suspending almost all re-examination activities; receiving only emergency cases or cases that required continuous treatment; setting up one-way hospital entrance. Strict measures were implemented in all departments including keeping a distance of at least 2 m between hospital beds and among patients; providing hand sanitizers and medical masks; arranging separate treatment areas for suspected patients or for those who had close contact with COVID-19 patients[2]. Additionally, a 140-bed field hospital was built and fully equipped in an area of BMH, which was a place to take care of critically ill patients suspected of SARS-CoV-2 infections[3]. Furthermore, a COVID-19 test has been provided rapidly for all 4 000 hospital staff, thousands of inpatients, and their caregivers[4].

Given that BMH could be a source of a bigger epicenter, the entire hospital was in isolation from March 28, 2020[5]. As of March 30, there were 25 confirmed cases of COVID-19 related to BMH, and those who had close contact with confirmed cases were required to be isolated in the centralized quarantine facilities[1]. During this time, the hospital stopped receiving patients and imposed a suspension of emergency cases transferred from lower-level hospitals to alternative hospitals for treatment[6]. All departments and services were almost suspended except for the Emergency Department, which accepts critically ill patients beyond the treatment capacity of the lower-level hospitals. Physical distancing and disinfection control were also tightened at a denser frequency than usual. For contact tracing in the community, over 5 100 inpatients who were discharged to local provinces and their caregivers were searched and required home isolation. A hotline was established to receive information on suspicious cases related to the hospital.

After the 14-day lockdown without any new cases and all people in the hospital had negative results of two consecutive COVID-19 tests, BMH ended the lockdown at 0:00 on April 12 with 44 cases related to the hospital. BMH successfully controlled the pandemic within three weeks with a very low number of transmitted cases in the hospital and community. This valuable lesson may serve as a unique reference for other hospitals of low resource settings where prompt decisions, in-house lockdown, and effective contact tracing all play an important role in fending off possible upcoming COVID-19 waves.

Conflict of interest statement

The authors declare that there is no conflict of interest.

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HVM, TPTT, and TNPN conducted literature searches and provided summaries of the review. VMH wrote original draft. TPTT, TNPN, THYN, and QTN reviewed and revised the manuscript. All authors approved the final version of the manuscript.

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