Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Correspondence

Hotel-based quarantine center as a rapid response to COVID-19 outbreak, New Taipei, Taiwan, May to July 2021

Dear Editor,

COVID-19 has been a challenge for medical systems for 2 years. In Taiwan, despite early success in controlling the spread of the disease in 2020,[1] the number of confirmed cases has been rising significantly in May 2021.[2] The medical system might break down if all the confirmed patients were admitted to the hospitals.[3] New Taipei City Government has launched a new program that recruited several hotels and turned them into medicalized quarantine centers, equipped with medical staff and resources, aimed to provide care for these asymptomatic or mildly symptomatic COVID-19 patients.[4]

The Far-Eastern Memorial Hospital (FEMH) is a medical center located in New Taipei City. Medicalized quarantine centers were regarded as outposts. There were two quarantine centers managed by the FEMH, one managed by internists (Pan-Chiao, P center) and the other managed by surgeons (San-Chong, S center) (see Fig. 1). Both centers received and treated asymptomatic or mildly symptomatic COVID-19 patients based on the same admission criteria, relocation criteria, infectious control protocol, patient care guideline, and discharge criteria set up in advance by infectious disease specialists in the FEMH.[4] A patient would be transferred to the FEMH during the isolation period if the

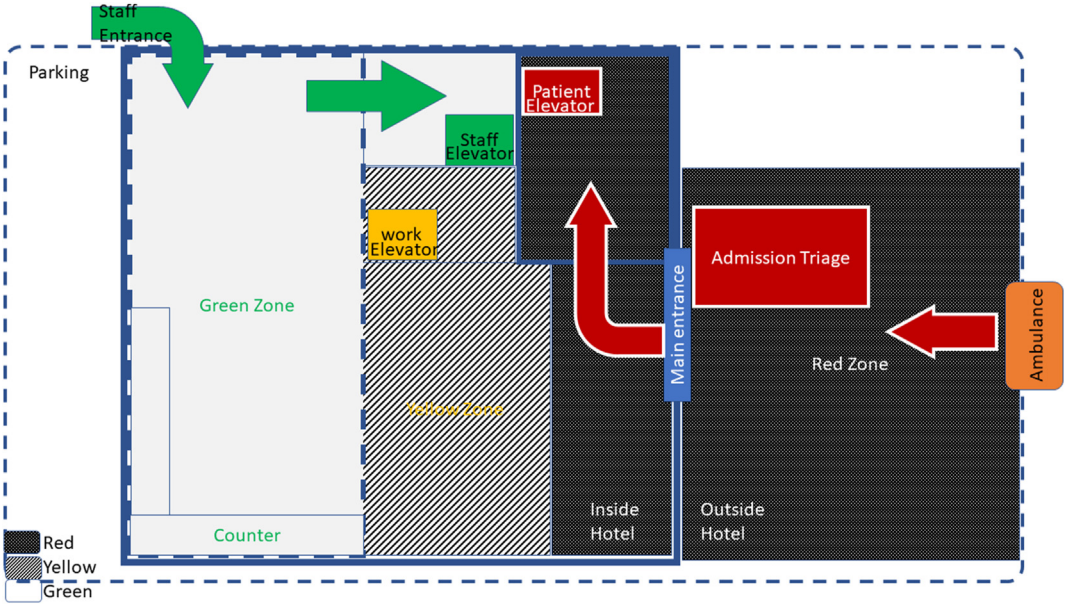

Figure 1 The infection control route inside the S-center.

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Table 1 Patients' demographic and clinical characteristics.

	S-center (n = 210)	P-center (n = 632)	P value
Gender (M:F)	117:93	307:325	.073[b]
Mean Age (years)	45.9 (16.7)	43.6 (19.7)	.060[d]
Transfer rate, n(%)	33 (15.7)	94 (14.8)	.768[b]
In hospital mortality rate, n(%)	0 (.0)	2 (.3)	.563[c]
Admission to ICU rate, n(%)[a]	5 (2.4)	17 (2.7)	.808[b]
Length of center stay	8.2 (3.1)	8.7 (3.5)	.229[d]
Center discharge rate, n(%)	177 (84.3)	538 (85.1)	.768[b]

[a] Data are reported as the mean (standard deviation) or number (percentage), ICU, Intensive care unit.
[b] Chi-squared test.
[c] Fisher's exact test.
[d] Student t test.

patient developed clinical deteriorations which met the admission criteria of the hospital.[2]

From May 28th, 2021, to July 3rd, 2021, a total of 6561 confirmed COVID-19 cases were diagnosed in New Taipei City. Among them, 1265 (19.3%) patients were sent to the FEMH service, including 423 (33.4%) to the FEMH directly, 632 (50.0%) patients to the P center, and 210 (16.6%) patients to the S center. A total of 33 patients (15.7%) were transferred back to the FEMH from the S center. Among them, 28 stayed at COVID-specific wards, and 5 of them required ICU care. All patients survived to discharge. There were 177 patients discharged smoothly from the S center, with an average of 8.2 (SD:3.1) days of stay. On the other hand, ninety-four (14.9%) patients were transferred back to the FEMH from the P center. Among them, 77 patients stayed in COVID-specific wards and 17 required ICU care. Unfortunately, 2 patients expired due to multiple organ failure. The average stay at the P center was 8.7 (SD:3.5) days. Outcome of patients were similar at the 2 centers despite of one center was run by surgeons (Table 1).

Diverting asymptomatic or mildly symptomatic COVID-19 patients to places outside the hospitals is feasible. In contrast to several weeks for the construction of a mobile cabin hospital, a medicalized hotel-based quarantine center (vertical cabin hospital) could be quickly organized and ready to receive patients within days. The advantages of a medicalized quarantine center over a nonmedicalized center included real-time monitoring, timely treatment of symptoms, and early detection of the patients' need for transfer. Moreover, surgeons could manage the quarantine center as effectively as internists if they strictly followed protocols, indicating the nonsurgical roles surgeons can play during the pandemic.[5] Repurposing surgeons in the health care system might be valuable in preventing the burnout of medical staff during the COVID-19 pandemic.

Availability of data and materials

The datasets that were obtained and analyzed during the current study are available from the corresponding author upon reasonable request.

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Contributions

H.W.Tsai, F.M,Hung, and H.F.Lin conceived and designed the study. All authors participated in data collection. H.W.Tsai, C.H.Liao, and H.F.Lin participated in writing the manuscript. H.W.Tsai and H.F.Lin were responsible for the statistical analysis and interpretation of data. All authors read and approved the final manuscript.

Ethics approval and consent to participate

After consulting the institutional review board of Far-Eastern Memorial Hospital, (consultation number 110-007), the informed consent was waived due to the retrospective nature, and no individualized patient data were collected.

Declaration of competing interest

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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