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Letter to the Editor: Risk Communication, Shared Responsibility, and Mutual Trust Are Matters: Real Lessons from Closure of Eunpyeong St. Mary's Hospital Due to Coronavirus Disease 2019 in Korea

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▸ See the article "A Lesson from Temporary Closing of a Single University-affiliated Hospital owing to In-Hospital Transmission of Coronavirus Disease 2019" in volume 35, number 13, e145.

We appreciate the recent opinion from Lee et al.[1] and their sincere effort to prevent coronavirus disease 2019 (COVID-19) hospital transmission. Because we participated as epidemiological investigators, we would like to share different aspects of the same experience.

COVID-19 cluster at Eunpyeong St. Mary's Hospital had important positions in this crisis, which occurred with the first case of a patient transfer staff from February 21, 2020.[1] Firstly, this was the first mass infection of COVID-19 in Seoul Metropolitan area. While Daegu crisis related with Shinchoenji just turned for the worse, this could threat the community who was afraid of the uncontrolled transmission of Seoul, the most populated area in Korea. Secondly, this arose in the university hospital. If a university hospital infection spread out massively, many deaths could break out due to high severity of patients. Otherwise, unmet supply of health care services of north-west of Seoul was inevitable if the hospital was locked down in order to prevent hospital transmission. Thirdly, this was the first case that local government of Seoul took charge to control COVID-19 instead of Korea Centers for Disease Control and Prevention (KCDC). In the past, field epidemiologists of KCDC mostly investigated the outbreak and made decision while local government and hospital followed the KCDC's recommendation. However, because central government and KCDC withdrew the most of manpower in order to focus on the crisis of Daegu and Gyeongsangbuk-do, they devolve the authorities to the local government of Seoul. Therefore, the five stakeholders, KCDC, Seoul Metropolitan Government, field epidemiologists of Seoul, Eunpyeong-gu district, and Eunpyeong St. Mary's Hospital, confronted a whole other level of difficulty than long-term care or small sized hospitals.

There were 2 phases in COVID-19 cluster at Eunpyeong St. Mary's Hospital. Phase 1 was from the first COVID-19 case at February 21, 2020 to the first reverse transcription polymerase chain reaction (RT-PCR) completion of the whole staff, patients, and caregivers at February

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29, 2020. Phase 2 was from the stable period at March 1, 2020 to the re-open of the hospital at March 9, 2020. In phase 1, emergency response team had been activated in the hospital and concentrated all their power in order to prevent the in-hospital transmission. The whole hospital was quarantined and responded to the additional cases. Fortunately, there was no more case from February 26, 2020 and they could stabilize the hospital infection control. Twice RT-PCR of severe acute respiratory syndrome coronavirus 2 to the whole staff, patients, and caregivers in the hospital laboratory, the most brilliant idea in this crisis, traced the additional patient cases and confirmed that all medical staffs were negative. The president of the hospital announced that Eunpyeong St. Mary's Hospital could immediately cope with the COVID-19 outbreak with the preemptive support and on-site guidance of the government and would cooperate with the government in order to prevent in-hospital transmission and block the community transmission in his interview.

In phase 2, emergency response team had been stabilized and prepared the reopen of the hospitals. Continuous conflicts occurred in this regrettable phase. Each stakeholder had different opinion on the reopening time and the necessary condition. Eunpyeong St. Mary's Hospital wanted to be released from shutdown as soon as possible with the view of the reducing risk of infection. The opinion of Dr. Lee and colleagues pointed out this aspect. Their main argument is that the government prolonged the quarantine period following the old Middle East respiratory syndrome coronavirus (MERS) guideline in spite of the negative result of twice RT-PCR and their thorough prevention effort. Their opinion was based on the scientific evidence about the short lifetime of coronavirus on the surfaces and room air change rate enough to remove the virus. However, this presumption would not be conclusive because it did not consider the uncertain epidemiologic characteristics of COVID-19 and the fear of the community. Seoul Metropolitan Government and field epidemiologists of Seoul had a conservative point of view for the reopen time. They decided that the risk of transmission still remained considerably. While the view of the hospital was focused on the in-hospital infection, government and field epidemiologists had to prevent the spread-out of COVID-19 to the community with controlling the in-hospital transmission. Asymptomatic carrier transmission or the possibility of unusually long incubation period could not be underestimated due to the hospital cluster infection.[2] Eunpyeong-gu district got into trouble. Eunpyeong-gu Public Health Center wanted to follow the recommendation of Seoul Metropolitan Government while the head officer of Enpyeong-gu looked forward to shortening the lockdown periods with the concern of the lack of critical care workforce. KCDC officially gave the authorities for the reopen to Seoul Metropolitan Government. As the result, the hospital complained of disrupted autonomy and continuity of hospital care, which were caused by the prolonged lockdown periods. Seoul Metropolitan Government did not want to face with the relapse of hospital transmission or additional community transmission. Eunpyeong St. Mary's Hospital was ungrateful to Seoul Metropolitan Government for their persistent demand of reopen without responsibility for the relapse.

In this point, we suggest three principles about dealing with hospital transmission for the first novel experience of COVID-19. First, risk communication should be clearer and more straightforward.[3] We got the impression that Seoul Metropolitan Government and the hospital did not discuss what they openly wanted to do. Probably the reason why the hospital wanted to advance the reopen time would be to retrieve the reputation and to reduce the loss of patients, even if it was not officially announced. The reputation of hospitals is more precious than the financial benefit. They might want to publicize that they were not contagious anymore and prepared for the release from lockdown. Also, they did not want to

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lose the patients. In previous experience of MERS, it took a comparable amount of time to return the patients. Seoul Metropolitan Government and the hospital should had been more open to each other. If we were Seoul Metropolitan Government officers, we would deal with financial compensation unofficially. The right to compensation for loss by the shutdown is provided in Article 70 of Infectious Disease Control and Prevention Act. Seoul Metropolitan Government could suggest the adequate compensation for the fulltime shutdown in addition to central government for the hospital's dedication, because Seoul Metropolitan Government could organize the committee for compensation. Second, the stakeholders should share the responsibility in this crisis. For example, in the case of Asan Medical Center shut down for the child case of COVID-19 from March 30, 2020, KCDC, Seoul Metropolitan Government, field epidemiologists of Seoul, Songpa-gu district, and the hospital processed the important issues every morning by discussing the problems and achieving consensus. This meeting is needed for the limitation of KCDC guideline which does not have the solution for the specific cases occurring every day. In order to manage the problems promptly, the stakeholders exchange opinions, make a decision, and keep a record of it. These steps would not only reduce the political and administrative burden of Seoul and Songpa-gu government, but also respect the professionality of the field epidemiologists and the hospital staffs. Third, the stakeholders should build mutual trust in this COVID-19 crisis. The hospital is an organization devoted to caring the patients, not a self-interested one focusing on the financial profits. The government is making a strong commitment to prevent the disease, not a conservative and immobile one. They should respect each other's roles. We cannot overcome this crisis alone.

Risk communication, shared responsibility, and building mutual trust are the most important lessons from COVID-19 cluster at Eunpyeong St. Mary's Hospital and we should follow these principles until the end of COVID-19 outbreak.

REFERENCES

1. Lee H, Heo JW, Kim SW, Lee J, Choi JH. A lesson from temporary closing of a single university-affiliated hospital owing to in-hospital transmission of coronavirus disease 2019. *J Korean Med Sci* 2020;35(13):e145.
PUBMED | CROSSREF
2. Bai Y, Yao L, Wei T, Tian F, Jin DY, Chen L, et al. Presumed asymptomatic carrier transmission of COVID-19. *JAMA* 2020;323(14):1406-7.
PUBMED | CROSSREF
3. Jang WM, Kim UN, Jang DH, Jung H, Cho S, Eun SJ, et al. Influence of trust on two different risk perceptions as an affective and cognitive dimension during Middle East respiratory syndrome coronavirus (MERS-CoV) outbreak in South Korea: serial cross-sectional surveys. *BMJ Open* 2020;10(3):e033026.
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Response

The Author's Response: A Lesson from Temporary Closing of a Single University-affiliated Hospital owing to In-Hospital Transmission of Coronavirus Disease 2019

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We appreciate the different opinions shared by the epidemiological investigators at Seoul Metropolitan Government to our recent opinion on 'A Lesson from Temporary Closing of a Single University-affiliated Hospital owing to In-Hospital Transmission of Coronavirus Disease 2019.'[1] We have several objections to the comments received from Dr. Kim and his colleague.

First, we did acknowledge from the beginning that coronavirus disease 2019 (COVID-19) cluster at Eunpyeong St. Mary's Hospital, a university-based mid-sized hospital, could pose a big threat to Seoul. Therefore, after the discovery of the first patient, the hospital was closed by the decision of the hospital itself. Since then, countermeasuring headquarters was established in the hospital along with Eunpyeong-gu Public Health Center, Eunpyeong-gu district office, Korea Centers for Disease Control and Prevention (KCDC) and the Seoul Metropolitan Government. All of the stakeholders worked together rigorously, conducting meetings 1–2 times daily from day 1 of shutdown, to communicate and discuss actions needed to be taken in this crisis situation and tried to implement them in the shortest time possible. We reported on all of the in-hospital issues such as performing surgery on remaining hospitalized patients, dialysis processes for patients with chronic kidney disease who were not accepted by other hospitals and emergency treatment on our staff, and heard opinions from the countermeasuring headquarters. After the occurrence of additional confirmed cases, Seoul Metropolitan Government and the hospital were both aware of the need for the 2019 novel coronavirus (severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2]) polymerase chain reaction (PCR) testing in all medical staffs as well as hospitalized patients, and implemented it quickly and safely. The results were all negative and fortunately there were no further occurrences in patients and staffs since the fourth patient. We continuously monitored the patients and medical staffs for new symptoms and immediately performed SARS-CoV-2 PCR testing if new symptoms developed. As a result, we have not had any more new confirmed cases after reopening.

Disclosure

The authors have no potential conflicts of interest to disclose.

Second, we are dumbfounded by your opinion suggesting that in 'Phase 2' there were continuous conflicts with the hospital and the other stakeholders regarding the reopening period which was due to lack of communication. The reopening period had been tentatively decided on March 9, on the condition that there were no more in-hospital cases and there was no discussion to shorten the closing period during this period. Overhead operations on safety measures and processes dealing with outpatients, hospitalization, and surgery were performed during the closing period and we took plenty of time to perform meticulous simulations and inspections before reopening. We even took time to repair and install facilities to accommodate COVID-19 diagnosed patients after reopening. It was a very meaningful period for the hospital to create and mature into a safe environment. We ensured that all employees were fully prepared by training them on new processes and infection control. Therefore, the authors' speculation that the hospital's financial compensation problem or reputation was an important reason for hastening to reopen is very unpleasant. In addition, many countries have clearly witnessed the collapse of the medical system due to the large spreading power of COVID-19 and its lethal consequences. In fact the most requested appeal from the community of Eunpyeong-gu during the closure period was the urgent reopening of the emergency medical center, in which the hospital had to worry deeply about. We feel it is necessary in the future for the government to draw up comprehensive support measures for the existing non-infected patients and encourage the hospitals to resume patient care meanwhile isolating those who fit the criteria. We tried to share our opinions on this matter with our readers.

Lastly, we strongly emphasize that our recent opinion did not intend to judge that the 14-day closure due to COVID-19 at Eunpyeong St. Mary's Hospital was right or wrong. However, we tried to point out that we controlled further outbreaks efficiently by prompt diagnostic testing in all patients and employees along with thorough supervision on contact isolation, disinfection, quarantine and patient and staff management. We tried to shine a light on the different viewpoints of preventing mass- infection in the community and encourage further research to show why the spread of infection differed for various hospital settings. We would like to make it clear that the authors were mainly asking the readers to question whether they could find ways to reduce the medical gap that communities and nations have to bear by closing medical institutions.

With all due respect, we find it inappropriate for Dr. Kim and Lee to intervene in this affair as they do not know the entire progress of the closing period at Eunpyeong St. Mary's Hospital. To presume in a sarcastic manner that financial reasons were the main reason for wanting to shorten the closing period is absurd and unfair. In fact, their attitude is trying to drag down the reputation of other hospitals who have been working hard to recover from the COVID-19 hit. This negative tone is unnecessary in tough times of the COVID-19 pandemic, where in fact we should gather our heads together and 'share communications and responsibility' as they suggested.

REFERENCES

1. Lee H, Heo JW, Kim SW, Lee J, Choi JH. A lesson from temporary closing of a single university-affiliated hospital owing to in-hospital transmission of coronavirus disease 2019. *J Korean Med Sci* 2020;35(13):e145.
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