

ISSN 2433-8443

# CBEL REPORT

Interdisciplinary Bioethics Research in Japanese and English

Volume 3  
Issue 2

CBEL Report Volume 3, Issue 2

By The University of Tokyo Center for Biomedical Ethics and Law

All contents are **OPEN ACCESS**.

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***Regular Article***

# **Public Health and Ethical Considerations on the Quarantine of Diamond Princess**

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**Abstract:**

Japan experienced a sharp increase of coronavirus disease 2019 (COVID-19) patients with the case of the cruise ship Diamond Princess docked at Yokohama. The Japanese government decided to take the massive quarantine measure to prevent the spread of the coronavirus in the country. However, the quarantine measure must be justified with an ethical point of view since it imposed the threat to human rights. We used an analytic tool for public health ethics to discuss the case with ethical considerations, focusing on burdens of people on board and ways to minimize them. Although the quarantine on the ship was proved to be effective in controlling the virus, it is important to further discuss and seek the intervention that is evidence based, fairly implemented and socially acceptable.

**Keywords:**

public health ethics, ethics framework, COVID-19, quarantine, Diamond Princess

## **1. Introduction**

### **1-1. Background**

The outbreak of novel coronavirus infectious disease (COVID-19) caused by SARS-CoV-2 started in Wuhan, China, in December 2019 (Wu, Leung and Leung 2020), and it has spread all over the world. As of September 1st, 2020, the total 25892040 people have been infected worldwide and 860322 of whom died of the disease. Japan has confirmed the total 68392 cases with more than 1200 death cases (Johns Hopkins Coronavirus Resource Center 2020).

### **1-2. Overview of Diamond Princess Cruise Ship Case**

The first case Japan faced this disease was a luxurious travel ship, called Diamond Princess that came back to Yokohama port with a number of passengers infected with SARS-CoV-2. The cruise ship embarked on a trip from Yokohama city, Japan on January 20th, 2020 and had a total of 3711 people onboard, 2661 of whom were passengers and 1045 were crews, from 57 countries. During the journey, a passenger, who got off in Hong Kong on January 25th, had respiratory symptoms on the ship, and was tested positive for COVID-19 on February 1st. The

information was notified to Japan next day and an anchorage quarantine measure was initiated. All passengers and crew members then underwent the initial health evaluation, the infection tests and their close contacts records were collected from February 3rd to 5th and they found 10 positive cases (The Ministry of Health, Labour and Welfare 2020). After a course of inspections, the government adopted a mandatory quarantine measure on the ship from February 5th to 19th. On February 7th, thermometers were distributed to all passengers and crews to self-monitor their body temperature twice a day. The Fever Call Center (FCC) was also established on the cruise ship dedicated to calls from anyone who had suspicious symptoms. Finally, after 14 days of quarantine, people who had met the criteria of disembarkation left the cruise ship.

It is important to distinct the technical differences between the public measure of quarantine and isolation. Quarantine is defined as “separation and restriction of the movement of people who were exposed to a contagious disease to see if they become sick.” On the other hand, isolation is defined as “separation of sick people with a contagious disease from people who are not sick” (Centers for Disease Control and Prevention 2017). On the ship, those who were tested positive were transferred to hospitals for insolation and care, and the rest were kept on board for quarantine.

The basic ethical principle for public health is ‘Harm Principle,’ and it helps us to address to what extent it is possible to restrict the freedom of individuals to achieve public health goals. The original libertarian, John Stuart Mill said in his book, “On Liberty”, that the harm principle is the notion that “the only purpose for

which power can be right fully exercised over any member of a civilized community, against his will, is to prevent harm to others” (Mill 1977: 223). Thus, in the context of quarantine, the authority must clarify the situation that people who may have the virus are likely to harm the uninfected individuals. It is also important to note that they must justify the liberty violation of people in quarantine. However, to date, little is known about the extent to which the Japanese government exercised COVID-19 quarantine on the ship with ethical considerations.

This article paid attention to quarantine on the cruise ship from the ethical perspective because quarantine imposes a heavy burden on individuals in terms of their freedom, thus it requires the ethical considerations to justify beyond mere medical effectiveness (Wynia 2007).

### **1-3. Objective**

Given the significance of addressing the public health ethics in quarantine on the ship, it is important to examine how the quarantine measure should be ethically justified in the public health emergency. Therefore, this article aimed to analyze the response of the Japanese government to Diamond Princess Cruise Ship case from an ethical perspective.

### **1-4. Analysis Tool**

We analyzed the case of Diamond Princess using an analytic tool for public health ethics created by Kass (2001). She suggests a 6-step framework that guides public health experts or policy makers to choose a course of action that is ethically sound. She has applied

this framework to the case of avian influenza and discussed the ethical issues of its pandemic preparedness program (Kass 2015). This framework helps them to realize the moral issues surrounding public health work and consider how to respond to them.

The first step of the framework is goal identification. Public health work should aim at reducing morbidity or mortality of diseases. Second, public health professionals ought to examine if interventions are sufficiently supported by data or evidence to reach goals, because the most of public health programs are based on certain assumptions that they will achieve their stated goals at the end. Then, the third step is to identify what kind of burdens or harms could occur through the public health works. She presents three categories of burdens: risks to privacy and confidentiality, risks to liberty and self-determination and risks to justice. Fourth, it is important to consider whether the burdens of interventions can be minimized without reducing its efficacy greatly. The penultimate step of the framework is the fair distribution of benefits and burdens, which corresponds to the ethic principle of distribution justice. This asks us to treat people in a way that does not leave and discriminate specific group of people. Finally, it is ethically required to compare whether the expected benefits outbalance the burden of people.

The information of Diamond Princess Cruise Ship for the analysis was collected from the official reports of the Ministry of Health, Labour and Welfare and the National Institute of Infectious Diseases (NIID).

## **2. Ethical Evaluation Based on the Framework**

### **2-1. Public health goal of the quarantine**

In the context of quarantine, the purpose is to limit the spread of the disease by separating those who may carry the virus from uninfected people (Ries 2006). However, the Japanese government did not clearly explain the purpose of the quarantine measure on the cruise ship. According to the Quarantine Act (1951) in Japan, quarantine should be done to prevent the inflow of epidemics into Japan. The article 1 of the Quarantine Act (1951) states that “the purpose of this Act is to prevent infectious disease-causing pathogens that are not native to Japan from entering the country via marine vessels or aircrafts as well as to ensure that necessary measures are taken to prevent other infectious diseases involving vessels or aircrafts.” Ultimately, the quarantine measure ought to aim protecting health of Japanese citizens and minimize the spread of the disease as much as possible.

One of the possible reasons behind the government’s decision is that they had already predicted the spread of the virus within the ship. NIID (2020a) said that SARS-CoV-2 had been already spread in the cruise ship before it arrived at Yokohama port on February 3rd, 2020 based on their epidemiological analysis data. One recent study also revealed that the COVID-19 outbreak has already expanded to most of the decks before the arrival and quarantine (Tsuboi, et al. 2020). It may have happened possibly via recreational activities and communal spaces which were available to all passengers before quarantine (Rich 2020).

## 2-2. Effectiveness of the quarantine on achieving its goal

Kass (2001: 1778) argues that “as a rule of thumb, the greater the burdens posed by a program the stronger the evidence must be to demonstrate that the program will achieve its goals.” Selgelid (2009) also mentions that authorities should explain public health measures with the higher level of evidence when the basic the human right is at stake. Here arises another question: what kind of and how much of evidence is enough to justify the quarantine measure?

While researchers emphasize the importance of the strong scientific evidence, the effectiveness of quarantine has not been proved yet. Moreover, the case of Diamond Princess occurred in the early phase of the global COVID-19 pandemic when the available information in controlling the virus spread as well as the characteristics of the virus was extremely scarce. Although quarantine was implemented in the past pandemics such as AIDS and SARS (Hoffman 2004; Gostin, et al. 2003), the outbreak on the cruise ship was a unique environment and there was no case of such quarantine caused by the emerging infectious disease (Tsuboi et al. 2020).

With this situation in mind, the effectiveness of quarantine depends heavily on outbreak stage and the transmission characteristic (Gostin et al. 2020). Even though the high level of evidence is ideal, if the society faces a greater risk, public health officials may have to use lower level of evidence before imposing coercive measures, such as quarantine (Selgelid 2009).

## 2-3. Known or potential burden of the quarantine

For the quarantine measure, the costs for liberty and self-governance are the most obvious threat to people during quarantine since it imposes a paternalistic compliance (Kass 2001). Their autonomy was threatened during on the board quarantine. Moreover, they were also exposed to physical and psychological risks.

First of all, there was a possibility of getting infected by SARS-CoV-2 despite the government’s attempt to control the disease. Although those who had been infected were sent to hospitals, there was still a chance people remained would get infected. NIID (2020b) reported that the specimen of SARS-CoV-2 on the ship was found mostly from the floor and pillows from passenger cabins. This evidence suggests that the passengers and crews were exposed to the high-risk environment. In addition, those who had underlying medical conditions were facing the greater danger. Their medical supplies such as medications of diabetes or high blood pressure were running out during quarantine and some of them could not receive them for a certain period of time (The Asashi Shimbun 2020b).

Another burden people under quarantine faced was that quarantine placed a tremendous psychological strain on the individuals. People on the ship was under the stress of restricted movement and had to bear the fear of SARS-CoV-2. According to the report from the Disaster Psychiatric Assistance Team (2020), over 100 people were exposed to the severe stress condition and they needed to receive psychological care immediately. The crew members were under the double stress because they had a sense of responsibility as a crew and



anxiety of the infection risk (The Japan Times 2020).

In addition to physical and psychological threats being on the ship, medical workers who have engaged in Diamond Princess response faced on-the-job harassment (The Japanese Association for Disaster Medicine 2020). They performed daily health examination and inspections of the individuals on board, prescription of necessary medications and medical transport of those who were tested positive (Anan et al. 2020). Although their works were essential to the quarantine management, the Japanese Association for Disaster Medicine (2020) reported that some medical workers who were dispatched to the cruise ship were being discriminated. They said at least one of workers had been called an “infection source” or “germs” by their colleagues, and other workers could not go onto the property of hospitals where they work. On top of them, some of their children were being asked to stay home from their kindergartens (The Japanese Association for Disaster Medicine 2020).

#### **2-4. Minimization of burdens**

Kass (2001: 1780) said “if two options exist to address a public health problem, we are required, ethically, to choose the approach that poses fewer risks to other moral claims, such as liberty, privacy, opportunity, and justice, assuming benefits are not significantly reduced.” Therefore, in addition to the effort of minimizing burdens, the Japanese government is required to consider a measure that is the most ethically acceptable. Were there other options in the case of Diamond Princess case?

One possible option would be to quarantine on the land. However, it is important to remind that Yokohama, where the cruise ship arrived at, is the second populated city in Japan. The other possibility was to order home quarantine to those who did not present the symptoms. Quarantine at home is a preferred method to control the outbreak because it is voluntary participation and requires less liberty restriction (Certon and Landwirth 2005). However, in the case of Wuhan, China during COVID-19 outbreak, the high transmission to family members was reported after the home quarantine started (Xu, et al. 2020). Therefore, the home might not work as the segregation facility in terms of protecting people who have not been infected the virus.

Consequently, in order to minimize burdens of quarantine, it is important to maximize the quality of life (QOL) of the passengers and crew members to assure their rights of reasonable lives. To maximize the QOL, the officials must protect passengers and crew members and ensure that they stay healthy including food, water, place to rest, good medical care, sanitary facilities and good hygiene (Nakazawa, et al. 2020).

As for the burden of medical workers, it is important to consider the level of risk that they have to take by going into the cruise ship to save lives of others. This poses the fundamental question in regard to their duties to treat. Even though health care professionals might have a strong moral obligation to serve and accept the extraordinary situations like pandemics (Kotalik 2005), it is by no means the society can disrespect the quality of their lives for the sake of saving the rest of citizens (Pahlman, Tohmo and Gylling 2010). The

society should specify the threshold of duty because risk-taking commitment of health care professionals should not be taken for granted (Selgelid and Chen 2008). If the society requires medical workers to serve their duties, it is the government that has responsibility to support their works so that they can fully engage in their roles without any disadvantages.

## **2-5. Fair implementation of the quarantine**

This part of framework corresponds to the notion of ‘Distributive Justice’, which requires the fair distribution of burdens and benefits in societies (Rawls 1999). Kass (2001: 1781) said neither public health burdens and benefits should be provided disproportionately, and the unfair distribution has to be justified with the scientific data.

NIID (2020a) admitted that they could not isolate everyone to private cabins, and most people stayed in double rooms during quarantine on the cruise ship. Given that the specimens of SARS-CoV-2 were highly found in passenger’s cabins (National Institute of Infectious Diseases 2020b), people who had to use their shared rooms were at higher risk of infection. This shows that the government could not distribute the resources equally, and some people had to sacrifice more than others. However, at the same time, it was impossible to provide a single room to every single people practically considering the number of cabins the cruise ship owned.

As for the screening evaluation, the government could not initially perform COVID-19 testing to all members on board due to the capacity limitation. Thus, they had to prioritize some passengers to allocate the

resource. The priority of the screening was based on age and comorbidities because more than 30% of passengers were over 70 years old. Passengers aged over 80 years prioritize first, followed by those in their seventies and so on (National Institute of Infectious Diseases 2020a). NIID explained that the elderly and people with complications were prioritize because they were more vulnerable to SARS-CoV-2 and the transmission of the virus would cause severe health conditions.

According to “The Difference Principle” proposed by John Rawls in his book, “A Theory of Justice”, those who were advantaged least should receive the greatest advantage (Rawls 1999: 53). In the case of Diamond Princess, people who had to stay in the cabins with negative result of inspections and crew members who were obliged to continue working can be regarded as the least-advantaged in terms of burdens during the quarantine. Therefore, in order to justify the inequality of their rights and liberties, it is also important to further the argument that aims to equally maximize the position of the least advantaged.

## **2-6. Balance between the benefits and burdens of the quarantine**

In a general sense, quarantine must be the last resort in response to the public health emergency because it requires legal, ethical and logistical challenges (Gostin, et al. 2020). It is essential to consider whether benefits of the individuals outweigh their burdens.

In contrast, when the decision has to made in a situation like COVID-19 where little is known about its

risks, authorities might not have enough time to compare and test the all available options. In fact, the Japanese government had initially limited eligibility for the inspections to those who had the symptoms before the quarantine (The Asahi Shimbun 2020a), but they switched to perform the systematic screening inspections after the several confirmed cases on the ship. This suggests that it was difficult for them to evaluate the possible impact of the outbreak on the ship.

There are several researches that have examined the efficacy of quarantine aboard (Zhang et al. 2020; Mizumoto and Chowell 2020; Nishimura 2020; Tsuboi et al. 2020). Although their results are not precisely corresponding, the overall results suggest that the number of confirmed COVID-19 cases on the ship were gradually decreased after the initiation of quarantine. Nishimura (2020) said that the movement restriction led to reducing the case of secondary transmissions on board. Tsuboi et al. (2020) discussed that the set of countermeasures such as the early isolation of infected people, thermometer distribution, the establishment of FCC and the systematic testing may have contributed to the reduction of transmission.

Lastly, Nakazawa et al. (2020) point out that the importance of ‘Procedural Justice’ in the government’s decision of quarantine aboard the ship. Although the epidemiological effectiveness of an intervention was revealed retrospectively, the ethical consideration during quarantine is also significant to make a better decision. The Procedural Justice is a concept that “requires a society to engage in a democratic process to determine which public health functions it wants its

government to maintain, recognizing that some infringements of liberty and other burdens are unavoidable” (Kass 2001: 1781). It opens the discussion on what benefits a society should gain through a public health and why it cannot be obtained by other methods.

### 3. Discussion

This article examined the ethical issue on quarantine in Diamond Princess Cruise Ship by using the public health ethic framework. The argument highlighted that although the human rights of people during quarantine were at stake to some extent, the response of Japanese government included the ethical considerations to maximize the benefits of the individuals on board with the effort of isolation of infected people in the early stage, prioritizing those who were the most at risk and providing the minimum quality of living conditions to passengers. To make the government led intervention better, it is important to proceed the highly burdensome measure like quarantine on the cruise ship with its transparency and accountability. Moreover, the ethical justification for the burdens and benefits of interventions should be prioritize including the principle they base on.

This study has limitations. The whole argument relies on one framework. This might have narrowed the perspective of the evaluation process. In addition, the available data for the analysis was limited, and we could not conduct interviews with those who were involved in this case.

Despite the limitations above, this article may present some insights to the public health work. To our

knowledge, this is the first article that specifically focuses on the quarantine on Diamond Princess Cruise Ship from an ethical point of view. The authors believe that this article provides some insights on quarantine during pandemics and similar situations where the society has to balance the benefits and burdens of quarantine. Nevertheless, the further ethical discussion is warranted to seek the practical measure to maximize the benefits for those who involved the case and overcome unprecedented challenge of quarantine.

## **References**

- Anan, H., Kondo, H., Takeuchi, I., Nakamori, T., Ikeda, Y., Akasada, O., and Koido, Y. (2020) 'Medical Transport for 769 COVID-19 Patients on a Cruise Ship by Japan Disaster Medical Assistance Team'. *Disaster Medicine and Public Health Preparedness*, 1-4. DOI: 10.1017/dmp.2020.187
- Centers of Disease Control and Prevention (2020) *Symptoms of Coronavirus* [online] available from <<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>> [28 May 2020]
- Centers of Disease Control and Prevention (2017) *Quarantine and Isolation* [online] available from <<https://www.cdc.gov/quarantine/index.html>> [24 May 2020]
- Certon, M. and Landwirth, J. (2005) 'Public Health and Ethical Considerations in Planning for Quarantine'. *Yale Journal of Biology and Medicine* [online] 78(5), 325-330. available from <<https://medicine.yale.edu/yjbm/>> [24 May 2020]
- Disaster Psychiatric Assistance Team (2020) *A Report on DPAT Activities on the Cruise Ship in Response to the New Coronavirus* [online] available from <<https://www.nisseikyo.or.jp/images/news/gyousei/coronavirus/200304-04.pdf>> [29 May 2020]
- Gostin, L. O., Bayer, R., and Fairchild, A. L. (2003) 'Ethical and Legal Challenges Posed by Severe Acute Respiratory Syndrome Implications for the Control of Severe Infectious Disease Threats'. *The Journal of the American Medical Association* 290(24), 3229-3237. DOI: 10.1001/jama.290.24.3229
- Gostin, L. O., Friedman, E. A., and Wetter, S. A. (2020) 'Responding to Covid-19: How to Navigate a Public Health Emergency Legally and Ethically'. *Hastings Center Report* 50(2), 1-5. DOI: <https://doi.org/10.1002/hast.1090>
- Hoffman, S. Z. (2004) 'HIV/AIDS in Cuba: A Model for Care or an Ethical Dilemma?' *African Health Sciences* [online] 4(3), 208-209. available from <<https://www.ajol.info/index.php/ahs>> [24 May 2020]
- Johns Hopkins Coronavirus Resource Center (2020) *COVID-19 Map* [online] available from <<https://coronavirus.jhu.edu/map.html>> [24 May 2020]
- Kass, N. E. (2015) 'An ethics framework for public health and avian influenza pandemic preparedness'. *Yale Journal of Biology and*

- Medicine* [online] 78(5), 235-250. available from <<https://medicine.yale.edu/yjbm/>> [24 May 2020]
- Kass, N. E. (2001) 'An Ethics Framework for Public Health'. *American Journal of Public Health* 91(11), 1776-1782. DOI: 10.2105/ajph.91.11.1776
- Kenekiho [Quarantine Act] Act No. 201 of June 6, 1951, art. 1, para. 1, as last amended by Act No. 30 of May 12, 2008.
- Kotalik, J. (2005) 'Preparing for an Influenza Pandemic: Ethical Issues'. *Bioethics* 19(4), 422-431. DOI: 10.1111/j.1467-8519.2005.00453.x
- Mill, J. S. (1977) *The Collected Works of John Stuart Mill, Volume XVIII - Essays on Politics and Society Part I* [online] ed. by Robson, J. M. introduction by Brady, A. Toronto: University of Toronto Press, London: Routledge and Kegan Paul. available from <<https://oll.libertyfund.org/titles/233>> [31 October 2020]
- Mizumoto, K. and Chowell, G. (2020) 'Transmission Potential of the Novel Coronavirus (COVID-19) Onboard the Diamond Princess Cruises Ship, 2020, Yokohama, Japan, 2020'. *Infectious Disease Modelling* 5, 264-270. DOI: <https://doi.org/10.1016/j.idm.2020.02.003>
- Nakazawa, E., Ino, H., and Akira, A. (2020) 'Chronology of COVID-19 Cases on the Diamond Princess Cruise Ship and Ethical Considerations: A Report from Japan'. *Disaster Medicine and Public Health Preparedness*, 1-27. DOI: 10.1017/dmp.2020.50
- National Institute of Infectious Diseases (2020a) *Field Briefing: Diamond Princess COVID-19 Cases, 20 Feb Update* [online] available from <<https://www.niid.go.jp/niid/en/2019-ncov-e/9417-covid-dp-fe-02.html>> [24 May 2020]
- National Institute of Infectious Diseases (2020b) *The Report on the Environmental Inspection of the Diamond Princess* [online] available from <<https://www.niid.go.jp/niid/ja/diseases/ka/corona-virus/2019-ncov/2484-idsc/9597-covid19-19.html>> [14 June 2020]
- Nishimura, H. (2020) 'Backcalculating the Incidence of Infection with COVID-19 on the Diamond Princess'. *Journal of Clinical Medicine* 9(3), 657. DOI: 10.3390/jcm9030657
- Pahlman, I., Tohmo, H., and Gylling, H. (2010) 'Pandemic Influenza: Human Rights, Ethics and Duty to Treat'. *Acta Anaesthesiologica Scandinavica* 54(1), 9-15. DOI: 10.1111/j.1399-6576.2009.02163.x
- Rawls, J. (1999) *The Theory of Justice*. rev. ed. by the United States of America: Harvard University Press.
- Rich, M. (2020) 'We're in a Petri Dish': How a Coronavirus Ravaged a Cruise Ship'. *The New York Times* [online] 23 February 2020. available from <<https://www.nytimes.com/2020/02/22/world/asia/coronavirus-japan-cruise-ship.html>> [14 June 2020]
- Ries, N. M. (2006) 'Chapter3: The 2003 SARS

- Outbreak in Canada: Legal and Ethical Lessons About the Use of Quarantine'. *Ethics and Epidemics* 9, 43-67. DOI: 10.1016/S1479-3709(06)09003-0
- Selgelid, M. (2009) 'Pandethics'. *The Royal Society for Public Health* 123(3), 255-259. DOI: 10.1016/j.puhe.2008.12.005
- Selgelid, J. M. and Chen, Y. C. (2008) 'Specifying the Duty to Treat'. *The American Journal of Bioethics* 8(8), 26-27. DOI: <https://doi.org/10.1080/15265160802318030>
- The Asahi Shimbun (2020a) 'Virus Testing for 3,000 on Cruise Ship a Logistical Nightmare'. *The Asahi Shimbun Digital* [online] 11 February 2020. Available from <http://www.asahi.com/ajw/articles/13119000> [14 June 2020]
- The Asahi Shimbun (2020b) 'Kusuri kireta, 2-shukan fuan: cruise-sen korei no jokyaku mo [Out of medication, 2 weeks of anxiety: cruise ship elderly passengers]'. *The Asahi Shimbun Digital* [online] 6 February 2020. available from <https://www.asahi.com/articles/DA3S14355482.html> [28 May 2020]
- The Japanese Association for Disaster Medicine (2020) *Statement on the unfair criticism to the medical staff members engage in the COVID-19 response* [online] available from [https://jadm.or.jp/sys/\\_data/info/pdf/pdf000121\\_1.pdf](https://jadm.or.jp/sys/_data/info/pdf/pdf000121_1.pdf) [21 August 2020]
- The Japan Times (2020) 'Experts in Japan Call for Easing Burdens on Coronavirus-hit Ship's Crew'. *The Japan Times* [online] 12 February 2020. available from <https://www.japantimes.co.jp/news/2020/02/12/national/burdened-japan-coronavirus-ship-crew/#.XtCh0J77QWo> [28 May 2020]
- The Ministry of Health, Labour and Welfare (2020) *A Report of the Diamond Princess Measure* [online] available from <https://www.mhlw.go.jp/content/10900000/000627363.pdf> [24 May 2020]
- Tsuboi, M., Hachiya, M., Noda, S., Iso, H., and Umeda, T. (2020) 'Epidemiology and Quarantine Measures During COVID-19 Outbreak on the Cruise Ship Diamond Princess Docked at Yokohama, Japan in 2020: A Descriptive Analysis'. *Global Health & Medicine* 2(2), 102-106. DOI: <https://doi.org/10.35772/ghm.2020.01037>
- Wu, J. W., Leung, K., and Leung, G. M. (2020) 'Nowcasting and Forecasting the Potential Domestic and International Spread of the 2019-nCoV Outbreak Originating in Wuhan, China: A Modelling Study'. *The Lancet* 395(10225), 689-697. DOI: [https://doi.org/10.1016/S0140-6736\(20\)30260-9](https://doi.org/10.1016/S0140-6736(20)30260-9)
- Wynia, M. K. (2007) 'Ethics and Public Health Emergencies: Restrictions on Liberty'. *The American Journal of Bioethics* 7(2), 1-5. DOI: 10.1080/15265160701577603
- Xu, J. W., Wang, X. Y., Qin, Z., Song, H. L., Wang, H., Luo, H. Y., Ye, L., and Feng, Z. H. (2020) 'Deep Thought of COVID-19 Based on Diamond Princess's Quarantine and Home Quarantine'. *European Review for Medical and*

*Pharmacological Sciences* 24(7), 4027-4029.

DOI: 10.26355/eurrev\_202004\_20872

Zhang, S., Diao, M., Yu, W., Pei, L., Lin, Z., and Chen,  
D. (2020) ‘Estimation of the Reproductive  
Number of Novel Coronavirus (COVID-19) and  
the Probable Outbreak Size on the Diamond  
Princess Cruise Ship: A Data-Driven Analysis’.  
*International Journal of Infectious Diseases* 93,  
201-204. DOI:  
<https://doi.org/10.1016/j.ijid.2020.02.033>

*Received 10 September 2020*

*Final version accepted 28 October 2020*



## Letter

## 遠隔医療の普及における信頼の重要性

木下翔太郎（慶應義塾大学医学部）

2019 年からの新型コロナウイルス感染症のパンデミック下において、遠隔医療が注目されている<sup>1)</sup>。遠隔医療では、対面診療と比較して得られる所見が限られ、問診によって多くの情報をとる必要があるため、患者との信頼関係が重要となる。患者との信頼関係を規定する要素は様々だが、大前提として、遠隔医療自体への信頼も確保されている必要がある。

筆者らは、17 の国と地域の研究者を対象に、今般のパンデミックにおける遠隔医療の規制動向についての調査を行なった<sup>2)</sup>。多くの国で規制緩和が行われ、遠隔医療が普及する方向に進んでいることが確認できたが、一部、パンデミックにおいて規制の多くが取り払われたにも関わらず遠隔医療の普及が進んでいないという国があった。これらの国で遠隔医療が普及しなかった理由として、新しい方法を用いることへの心理的抵抗感、医師と対面で会うことを重視するなどの文化的背景などが考えられた。患者や医療者に遠隔医療が受け入れられていくためには、こうした臨床的なツールとしての遠隔医療への不信を取り除いていく必要があると考えられる。

また、遠隔医療の普及策を検討していく上では、医療インフラとしての遠隔医療への信頼も重要である。WHO が 130 か国の精神科医療について行なった調査によると、今般のパンデミック下において、高所得国の 80%以上が遠隔医療・遠隔サービ

スを導入しているのに対し、低所得国では 50%未満であった<sup>3)</sup>。これは、通信環境が脆弱な地域や、ICT 機器が手に入らない人々の間で遠隔医療が活用できていないことを示唆している。その他、身近な事例として、我が国のシェア上位を占めているオンライン診療システムにおいても、クレジットカードでないと決済できないものや、パソコンでの利用ができずスマートフォンでしか利用できないものなどがあり、事実上のアクセス制限となっている場合がある。このように、遠隔医療が急速に拡大する中で、インターネットにアクセスできない人々や ICT 機器を活用できない人々と、そうでない人々との間に生じる格差である「デジタル・ディバイド」のような問題も懸念されている。こうした倫理的課題に対して政府や医療者などの関係者が取り組もうとする姿勢を見せない場合、医療インフラとしての遠隔医療への信頼は得られず、普及に向けた動きにブレーキがかかる可能性がある。

遠隔医療を適切に普及させていくためには、遠隔医療への信頼を確保していくことが重要であり、普及に伴う倫理的課題についても真摯に向き合いながら、誰もが平等にアクセスできるよう努めていくべきである。



## 参考文献

- 1) 前村叶基. 2020. 「オンライン診療でどのように信頼関係を築くか」 *CBEL Report*, 3(1): 69-75.
- 2) Shotaro Kinoshita, Kelley Cortright, Allison Crawford, Yuya Mizuno, Kazunari Yoshida, Donald Hilty, Daniel Guinart, John Torous, Christoph U. Correll, David J. Castle, Deyvis Rocha, Yuan Yang, Yu-tao Xiang, Pernille Kølbaek, David Dines, Mohammad ElShami, Prakhar Jain, Roy Kallivayalil, Marco Solmi, Angela Favaro, Nicola Veronese, Soraya Seedat, Sangho Shin, Gonzalo Salazar de Pablo, Chun-Hung Chang, Kuan-Pin Su, Hakan Karas, John M. Kane, Peter Yellowlees, Taishiro Kishimoto. 2020. Changes in telepsychiatry regulations during the COVID-19 pandemic: 17 countries and regions' approaches to an evolving healthcare landscape. *Psychological Medicine*, 1-8. [Epub ahead of print].
- 3) World Health Organization. 2020. The impact of COVID-19 on mental, neurological and substance use services: results of a rapid assessment, <https://apps.who.int/iris/rest/bitstreams/1310579/retrieve> (Accessed 1/16/2021)

(2021 年 1 月 16 日受理／同年 2 月 1 日掲載決定)

**Journal information****《目的と領域 -Aims and Scope-》**

CBEL Report は日本における生命倫理・医療倫理研究のますますの発展に資するために創刊された学術雑誌である。当該分野の、新たな研究成果の開かれた発表の場として、また国際的な学問交流の場として、オープンアクセスの形で出版される。アカデミアの専門的研究の活発な知的交流の場を作り出すこと、およびそれに基づき全ての学問分野の研究者・学生ら、医療従事者、各種倫理委員会の委員、政策担当者、等に対して優れた知見を提供することをその使命とする。

**《投稿規定 -Instructions for Authors-》**

上述の目的のため、CBEL Report は、ここに広く研究成果を募集するものである。

1. 【投稿形式】 投稿形式は以下のように定める：

(ア) 字数に応じて以下のように投稿枠を区分する

- ① 短報 (letter)：邦語 1,000 字以内、英語 500words 以内
- ② 総説 (review)：邦語 20,000 字以内、英語 10,000words 以内
- ③ 論文 (article)：邦語 20,000 字以内、英語 10,000words 以内

※ いずれも抄録、注、文献リストを除いての数字とする

(イ) 上記のうち特に論文については、以下の 2 つの形式を定める

- ① 研究論文 (regular article)：新規投稿の論文。他の雑誌との重複投稿は認めない。ただし他学会での学会報告を新たに論文化したものはこの限りではない。
- ② 翻訳論文 (translated article)：他の媒体にすでに投稿した論文を翻訳したもの。英語への翻訳および日本語への翻訳を受け入れる（元の言語については限定を付さない）。投稿にあたっては著作権の許諾を証明する書類を添えること。

2. 【書式】 投稿原稿は以下の書式を満たすものでなければならない。

(ア) 和文あるいは英文とする。

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① 著作：著者名、発行年、書名、出版社

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(ケ) 研究資金について所属機関以外の組織・個人から支援を受けている場合には、その旨を論文末尾に必ず記載すること。

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2018年8月30日 編集委員会決定

2020年3月30日 編集委員会改定

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***Journal information*****Aims and Scope**

CBEL Report is an academic journal launched for the further development of bioethics and medical ethics in Japan. The open-access journal offers a public outlet for presenting new research results, creating an international network for academic exchange within the field of bioethics and medical ethics. The mission of CBEL Report is to lead an active intellectual discussion for specialized research to provide useful knowledge to researchers and students in all disciplines, health professionals, members of ethics committees and policymakers etc.

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To fulfill the above objectives, CBEL Report calls all authors to share their research results by submitting their manuscripts.

[Types of manuscripts] All manuscripts must be supplied in the following style.

- (a) Submitted manuscripts are categorized according to the word count as follows.
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- (b) The word count must not exceed the limit stipulated in Section 1 (a) according to the type of manuscript.
- (c) The manuscript must be presented in an electronic file prepared using Microsoft Word.
- (d) The title, manuscript type, name(s) of author(s), name of institution/department and contact information such as e-mail address must be entered in the first page.
- (e) Articles must include the abstract (up to 200 words in English or 450 characters in Japanese) and keywords (3 to 5 words for either English or Japanese) in the beginning.

- (f) Notes should be provided at the bottom of the page as footnotes (instead of placing them at the end of the article).
  - (g) Reference list should be included at the end of the article. There are no requirements on reference styles but all the following information must be included.
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# **CBEL Report Volume 3, Issue 2**

発行日 2021年3月20日

発行者 東京大学生命・医療倫理教育研究センター  
(ウェブサイト: [cbel.jp](http://cbel.jp))



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