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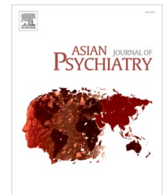

Short communication

Japanese local government management of compulsory hospitalization for patients with mental disorders and comorbid COVID-19

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ABSTRACT

Administering medical treatment or managing quarantine for a patient is particularly difficult when a patient harming others or causing self-harm because of severe depression, a manic state, or psychomotor agitation is also infected with COVID-19. Kanazawa University Hospital is the only facility able to manage such difficult cases occurring in Ishikawa prefecture, a local administrative area in Japan. The hospital has arranged a negative pressure apparatus in a psychiatric ward with two protection rooms. This report describes an urgently established but viable system in one prefecture of Japan for treating COVID-19-infected patients with severe psychiatric symptoms during the COVID-19 pandemic.

1. Introduction

Prognoses and outcomes of COVID-19 are known to be associated with psychiatric disorders (Nemani et al., 2021). The COVID-19 pandemic has increased the likelihood of compulsory hospitalization of patients with mental disorders, thereby posing various procedural and ethical challenges (Ambrosetti et al., 2021; Sorrentino et al., 2020; Strous and Gold, 2020). Particularly if a person with mental disability who might harm themselves or others has COVID-19, it might be difficult to conform to quarantine measures at home or to be treated at a hotel to prevent the spread of infection. It might also be difficult to manage care for such a person in a COVID-19 treatment ward (Gold et al., 2020; Parker et al., 2020). Of course, measures such as excessive sedation or physical restraints as countermeasures against symptoms of mental and behavioral disorders present ethical issues. Nevertheless, such patients must still receive standard treatment according to their condition. For that reason, it was necessary to create a unit to manage infectious diseases in the psychiatric ward of a general hospital, not in a specialized psychiatric hospital. This report is the first describing preparations that have been made to manage those difficult situations and describing the actual response of a local government in Japan.

2. Involuntary hospitalization in Japan

In Japan, according to the Medical Care Act, hospitalization for mental illness is done, in principle, in a psychiatric ward. The form of hospitalization in the psychiatric ward is regulated by the Act on Mental Health and Welfare for People with Mental Disability (Shiina et al., 2019). That act includes stipulated requirements for Voluntary Hospitalization, Emergency Hospitalization, Hospitalization for Medical Care and Protection, Emergency Involuntary Admission, and Involuntary Admission. Of these types of hospitalization, compulsory hospitalization is divisible broadly into two categories. One is Hospitalization for Medical Care and Protection with consent of the individual's family. The other is Involuntary Hospitalization and Emergency Involuntary Admission by the prefectural governor's order. The latter category of hospitalization is indicated when the patient is at risk of self-harm or of harming others. A relevant flowchart is presented in Fig. 1.

3. Comorbidity of mental disorders with COVID-19

If fever or respiratory symptoms are observed at the time of a psychiatric examination, then COVID-19 infection must be ruled out before hospitalization is chosen for a patient. Ordinary psychiatric hospitals have no adequate management systems to address infectious diseases properly. In addition, a risk exists that nosocomial infections will spread.

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Many psychiatric hospitals are unable to cope with aggravation after hospitalization because they are unable to administer sufficient oxygen or manage ventilators. In Japan, PCR tests are not performed at police stations. For that reason, it is not possible to decide where a person is to be hospitalized even after PCR results are obtained. Therefore, it was decided that an individual must first be admitted to our hospital as a case of Emergency Involuntary Admission, which can accommodate measures against aggravation of the disease and which can provide for administration of a PCR test after admission.

4. Preparation for management of comorbidity of COVID-19 with severe mental symptoms and behavioral disorders

A relevant scheme was drafted in August 2020 in Ishikawa prefecture, a local administrative area with 1.14 million residents. The prefecture's COVID-19 data show that 626 people were infected with COVID-19 during April–August 2020, which suggests that 1500 people (0.13% of all residents) can be expected to be infected with COVID-19 in one year. Also, prefectural data for mental health care show the annual number of Involuntary Hospitalizations and Emergency Involuntary Admissions by the prefectural governor's order as about 60. Therefore, all other factors being equal, probability suggests that individuals with COVID-19 infection who also have complications by psychiatric symptoms that require involuntary hospitalization by the prefectural governor's order would be fewer than one person per year. Nevertheless, we inferred that the number of hospitalizations for persons with mental disability who are also regarded as having difficulty following COVID-19 quarantine measures would be about 3000 per year in Ishikawa prefecture. If not in a pandemic period, then such individuals would be treated under requirements for Hospitalization for Medical Care and Protection, which is not an administrative measure. However, under a COVID-19 quarantine regime, the person's risk of harming others would be increased, as when a patient in a manic state or with dementia sings loudly without a mask or spits on other people. Considering the possibility that these patients might be judged as presenting a risk of harming others, we estimated that about four patients with COVID-19 would be treated with involuntary hospitalization by the prefectural governor's order in Ishikawa prefecture per year. It is unlikely that four such cases would occur simultaneously. For that reason, we inferred that preparing two beds in the prefecture would be sufficient. The Kanazawa University Hospital psychiatric ward has 38 beds. We renovated two of them into private rooms with apparatus to create negative air pressure in the rooms. The protection rooms were designed to cope with psychomotor agitation. Piping was installed while ensuring sufficient room size that a respirator could be operated if physical symptoms worsened. We collaborated with the mental health and welfare section of the local government to create a flowchart for care (Fig. 2).

5. Three accepted cases

5.1. *Man in his 80s with dementia related to Alzheimer's disease*

The man had a memory disorder detected several years prior, but he had refused supervision and follow-up. During the year prior, he reportedly began to use violence against his wife, affected by delusions of jealousy. On the day of hospitalization, he had suspected his wife of having an affair. He brought out a knife and went on a rampage. His wife called the police. He was later admitted to our hospital because mental health administration staff members conducted a preliminary survey of his health, which revealed a fever. The PCR test administered at our hospital yielded a negative result for COVID-19 infection. Therefore, he was transferred to a specialized psychiatric hospital.

5.2. *Woman in her 30s with borderline personality disorder*

This woman had been diagnosed with borderline personality disorder in her twenties and had been hospitalized several times in a psychiatric hospital. She is rearing her children as a single mother. When she consulted with police about daily life difficulties, she became furious at the proposal of temporary protection of her children at a child guidance center. She started self-harming. She became excited and used violence against the police officer who had stopped her. Because she had a fever, she was admitted to our hospital. The PCR test administered at our hospital yielded a negative result for COVID-19 infection. She was subsequently transferred to a specialized psychiatric hospital.

5.3. *Woman in her 30s with adjustment disorder*

This single mother consulted with a child guidance center about childcare. After she had violently injured her daughter on the day of hospitalization, she contacted the child guidance center herself. She became furious at the child guidance center staff for taking her child to the hospital and was reported to the police by staff members. By the time the police arrived, she had become very excited and was engaging in

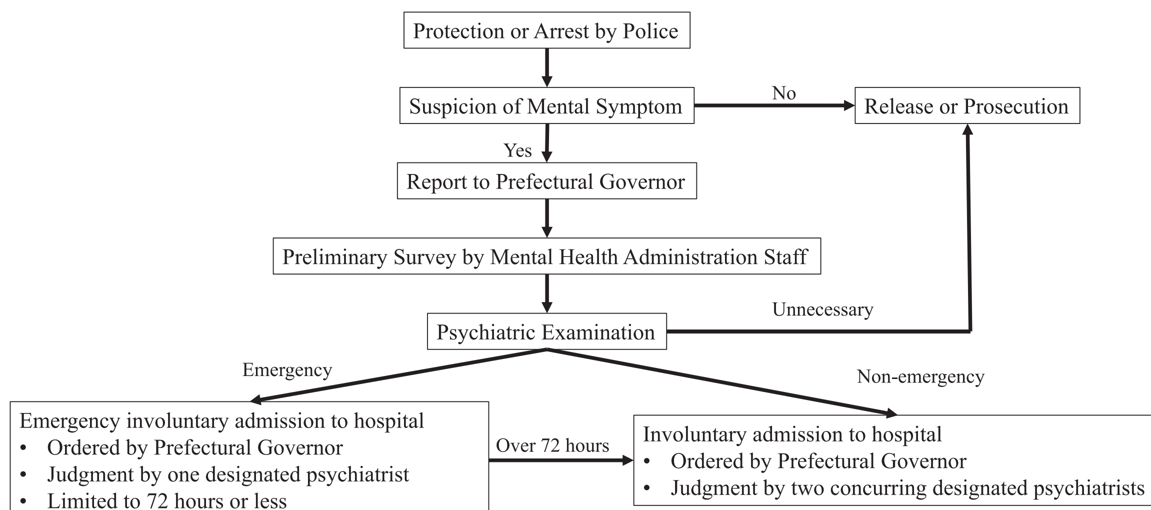

Fig. 1. When the patient is at risk of self-harm or of harming others, involuntary admission by prefectural governor's order is indicated.

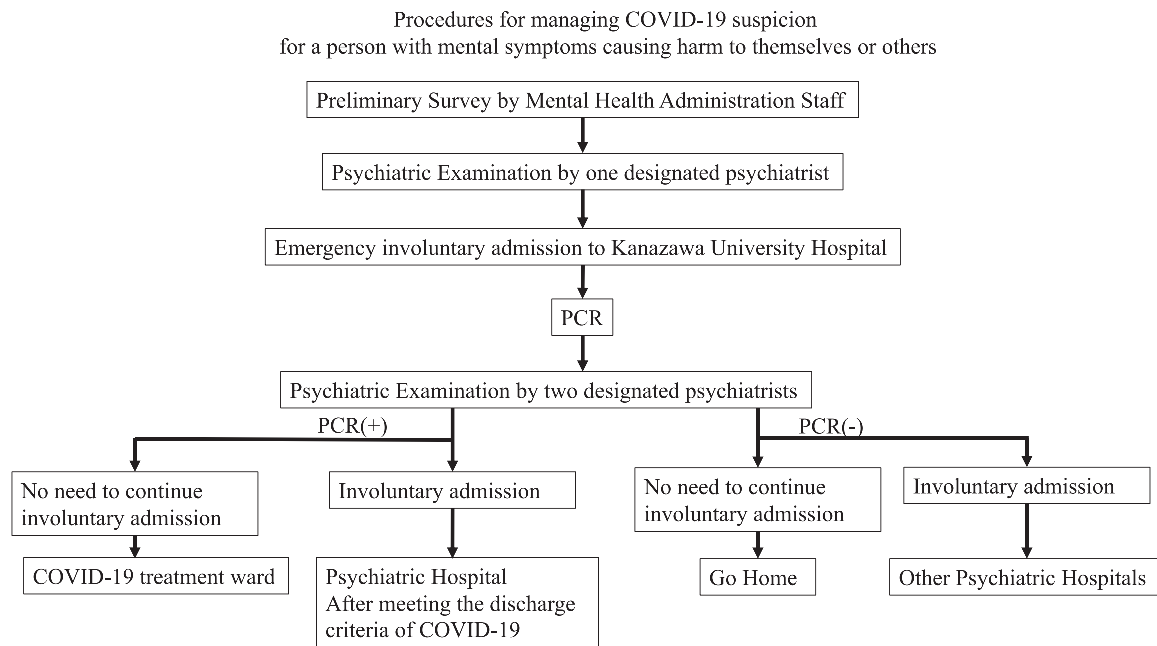

Fig. 2. We collaborated with the mental health and welfare section of the local government to create procedures for managing suspected COVID-19 cases with a risk of self-harm or harming others.

self-harm, including hitting her own head against a wall. Because she had a fever, she was admitted to our hospital. The PCR test result was positive for COVID-19 infection. Therefore, we continued to manage her treatment at our hospital. After meeting the discharge criteria, she was transferred to a specialized psychiatric hospital and was treated for a mental disorder.

6. Discussion

This report is the first describing specific procedures followed by a local government in Japan for managing COVID-19 infection or suspicion of persons with a mental disability who might harm themselves or others. Domestic violence was deeply involved in all three cases. It is noteworthy that reports have described increased domestic violence during disasters (Parkinson, 2019). Such cases must be assigned specific attention during the pandemic.

Results suggest that accurate estimation of the annual incidence of COVID-19 infected patients with mental disorders who are at risk of harming themselves or others is difficult. Involuntary hospitalizations in our prefecture are not numerous. They are about 60 per year. However, considering that greater numbers of patients who are judged to be at risk of harming others can be anticipated during COVID-19 quarantines, we decided to prepare two beds. Still, this and other preparations might not be sufficient to cope with the future spread of infection.

In light of other countries' responses to forced hospitalization for COVID-19-positive patients with mental illness, a balance between patient autonomy and community epidemics seems necessary to adjust the criteria for forced hospitalization. Reference to responses taken by other countries has revealed that the standard of compulsory hospitalization is typically adjusted to achieve a balance between patient autonomy and community epidemics (Gather et al., 2020; Griffith, 2020; Kelly, 2020; Wilson, 2020). Moreover, the risk of spreading infection within the psychotherapy unit is a universally addressed issue: the need for isolation is paramount (Zuffranieri and Zanalda, 2020). Compared to the rest of the world, Japan has fewer infected people and deaths from COVID-19. Therefore, each local government has been compelled to respond within the existing legal and medical framework rather than relying on the national government to develop a new law as a response to COVID-19.

Depending on the future spread of the infection, it might be necessary to correct that approach. The autonomy of people with mental illness must be respected while acknowledging a balance with infection control. Decisions must be made appropriately according to the prevailing circumstances.

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Declaration of Competing Interest

None to declare.

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