

# Admission to the psychiatric ward of a patient with paranoid syndrome and recommended COVID-19 quarantine: a case report

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## Summary

In this paper we discuss admission procedure to the COVID-19 quarantine department of a psychiatric hospital on the example of a patient diagnosed with paranoid syndrome. We also present hospital admission criteria set out by the Ministry of Health, recommended procedures during inpatient treatment and discharge a patient from the hospital. Special attention is given to the fact that referral of a patient who does not meet the above criteria may cause unneeded stress related to transport and refusal of admission. Careful planning of referrals may help avoid unnecessary costs associated with the use of protective gear by all persons who come into contact with such a patient at every stage of his stay in the hospital. We believe that in a context where any timeframe of the current epidemic in Poland remains unknown, familiarity and observance of the recommendations set out by the Ministry of Health is of particular importance.

**hospitalization, Ministry of Health, quarantine, mental illness, coronavirus, COVID-19**

## INTRODUCTION

In the current epidemiological situation, mentally ill patients infected or at risk of infection with coronavirus (in quarantine imposed by the sanitary inspectorate) are referred to specially designated healthcare facilities. In the West Pomeranian District, the institution responsible for provision of psychiatric care to COVID+ patients is the Department of Psychiatry of the Pomeranian Medical University in Szczecin. In order to best select patients who require treatment in psychiatric infectious wards, the exact criteria of hospitalization were defined by the Ministry of Health. Doctors, and in particular psychiatrists responsible

for patient referrals, should therefore familiarize themselves with those recommendations. In accordance with the provisions concerning management of COVID+ patients, admission to a psychiatric infectious ward or hospital is indicated in mentally ill patients who meet criteria pursuant to art. 23 clause 1 or art. 24 clause 1 of the Mental Health Protection Act of 19 August 1994, regardless of whether or not they provide consent to hospitalization, and who at the same time:

- a) are infected with COVID-19 or
- b) manifest the following symptoms: body temperature >38 degrees, shortness of breath (<20 breath count / min.) and cough or
- c) are in quarantine or home isolation in connection with COVID-19 [1].

The doctor is therefore authorized to refer a patient with or under investigation for

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COVID-19 to an infectious or quarantine ward of a psychiatric hospital (both of which are available at the PMU Department of Psychiatry) only if he or she meets the above criteria. It should be noted that the patient's transfer to the hospital admission room from their place of stay should be organized in such a way that will prevent further transmission of the virus. Such patients cannot therefore be transported by "ordinary" ambulances, which remains in accordance with the ordinance of the Minister of Health of 7 March 2020 on the list of diseases requiring obligatory hospital treatment [2]. Mandatory quarantine applies to residents returning from abroad, those who have had close contact with a suspected or confirmed patients, manifest symptoms that may indicate coronavirus infection, or live with a quarantined person.

So, how long is the isolation and who decides about its implementation? The quarantine normally lasts 14 days, but its length may be regulated individually by the state sanitary inspector depending on the state of health, individual characteristics justifying the change of its duration or test results of a given patient. Standard protocol dictates that a returning national remain in quarantine for 14 days from the day following their arrival to the country. They are informed about the exact dates the isolation is to start and end upon crossing the border by Border Patrol officers. When in doubt regarding the correctness of quarantine dates, the patient can verify those at the relevant Provincial Office. In the event of quarantine imposed by the sanitary inspectorate, the dates of its beginning and end are indicated by the relevant inspector [3].

After initial screening in the hospital admission room, all patients are tested (Real Time RT-PCR) for SARS-CoV-2 coronavirus (COVID-19). Before they receive the results, they remain under medical care in the isolation room. Final decisions concerning the hospital ward they will be hospitalized in are based on whether they test positive or negative for coronavirus. In the latter case, they are sent to the quarantine ward, while in the former – to the infectious ward. Treatment in the quarantine ward includes another test for coronavirus, performed on the penultimate day of the quarantine. In the event of a negative result, the patient may be discharged home after

completed quarantine, unless they still require psychiatric hospitalization, in which case they are to be transferred to another, non-infectious psychiatric hospital unit. However, if the test result is positive, the patient is to be transferred to the infectious ward.

The use of personal protective equipment must be observed by all staff at all times of contact with the patient.

The case report presented below refers to a person in quarantine who manifested symptoms of a mental illness, required mandatory hospital treatment, and therefore met the above-mentioned criteria for admission to the psychiatric ward.

## CASE REPORT

The patient is a 24-year-old single mother of an infant child. Her former partner, and the child's father lives abroad and provides financial support. The patient has technical secondary education. For approximately 4 years she used to perform manual labor, then quit her job and supported herself with unemployment benefit. She has no permanent residence. The patient reported a gradual deterioration of her mental state since pregnancy, but she did not report to a psychiatrist. For several months after giving birth to her child, she lived in the Single-Mother's House, where she felt persecuted and believed that someone was searching through her things. Then she returned to her family home. According to her family, she behaved strangely, claiming that billboards and advertisements illustrated her problems. In addition, she felt she was being watched and followed. After an argument with her mother, she left home and drove past the Polish border, where she experienced some car trouble and was found by local border services. In consequence, she was subjected to a two-week mandatory quarantine and placed in a hotel for this purpose.

Due to her strange behavior in the hotel, she was brought to the PMU Psychiatry Department by the Medical Rescue Team. During medical examination in the admission room she was calm, able to follow requests, focused on her child, expressing concerns about his health. Due to a reported cough, she was referred to the Infectious

Hospital to undergo a general physical health assessment. She was brought back to the Psychiatric Emergency Room with the assistance of the Police after she had pushed medical staff and yanked her child from the personnel during a pediatric examination in the pediatric hospital ward, claiming that “she wanted to take her child to the hospital.” Upon arrival of the police, she was aggressive, kicking the attending officers. In the psychiatric emergency room, she was agitated, and uncooperative, refusing to answer questions or replying “I don’t know”. She pushed the security guard trying to leave the examination room. She believed she was being followed by someone trying to hurt her, and collecting evidence against her. She thought she was controlled, and other people “knew different things about her.” She did not agree to hospitalization, claiming that “she had to take her child to the hospital for examination.” A throat swab was collected for COVID-19 test, with the patient awaiting the results under medical care in the isolation room. She tested negative, but due to the presence of psychotic symptoms and aggression towards other people, she was admitted to hospital without consent under Article 23 of the Mental Health Protection Act and placed in a quarantine ward. Due to further aggressive behavior observed in the ward, she required mechanical restraint. Pharmacological treatment was initiated, at first with zuclopenthixol (zuclopenthixol acetate) and lorazepam, followed by olanzapine in increasing doses, with a gradual improvement in mental state, sedation and reduction of psychotic symptoms. Performed psychological assessment revealed the presence of formal thought disorder. The patient denied the use of any psychoactive substances. Based on the clinical picture and psychological assessment, she was diagnosed with paranoid syndrome. Due to abnormal laboratory test results (TSH 105,000  $\mu$ IU / ml, thyroid hormones FT3: 3.94 pg / ml, FT4: 1.05 ng / dl, elevated levels of anti-TPO, anti-TG, TRAB antibodies), she underwent multiple consultations with an on-site internal medicine specialist. Administered concomitant therapy included thyroid hormones. On the penultimate day of the quarantine, the COVID-19 test was repeated, with a negative result. Due to the persistence of psychotic symptoms, the patient required further psychiatric hospitaliza-

tion, and was transferred to the psychiatric ward of a non-infectious hospital. She was discharged with the diagnosis of F20.0 and recommendation to take 10mg of olanzapine and 2mg of lorazepam daily.

## DISCUSSION

The 14-day quarantine obligation, as regulated by the Polish law, was imposed on the patient by the sanitary officer as she had crossed the border when her car broke down. Detailed rules regarding quarantine termination are announced on the website of the Chief Sanitary Inspectorate, stating that: “The quarantine is imposed for a period of 14 days. The quarantine decision results from: a) the act of crossing the border after March 15, 2020, or b) may be formulated orally by a sanitary officer.

In the event of entering the country – the quarantine obligation is valid for a period of 14 days from the date following the day of crossing the border. It is the responsibility of the Border Guard officers to provide information concerning the exact dates of the quarantine. Personal information of persons crossing the Polish border is collected in the system managed by the relevant Provincial Office. When in doubt regarding the correctness of quarantine dates related to returning to the country after March 15, it is therefore advisable to contact the relevant Provincial Office. In the event of quarantine imposed by the Sanitary Inspectorate – the decision about its implementation and termination are communicated by a relevant inspector. After the quarantine end date, and in the absence of COVID-19 symptoms, the citizen can immediately return to work. No additional certificate from the Sanitary Inspector is required. [4] Quarantine duration and status can be verified through the eWUŚ system (national system for electronic verification of beneficiaries’ eligibility) [5] or at the relevant Sanitary-Epidemiological Station. All necessary information regarding the management of coronavirus infection is also available via a helpline (tel. +48 800 190 590) of the National Health Fund [6].

Our patient met the criteria of psychiatric hospitalization in the quarantine ward, ie. a quarantine imposed by the sanitary authorities, mental

illness and aggression towards other persons. Incidentally, mental illness and aggressive behavior were an indication for involuntary hospitalization, and therefore she was admitted to hospital pursuant to art. 23 of the Mental Health Protection Act. Throughout the entire examination and management of the patient in the admission room and subsequently in the ward, all staff were obliged to strictly follow the procedure of using personal protective equipment, so as to minimize the risk of possible infection with coronavirus.

In the presented case, psychotic symptoms appeared prior to the potential risk of coronavirus infection, which was finally excluded in the patient. However, available literature provides reports of mentally healthy individuals with symptoms of acute psychosis in the form of delirium after coronavirus infection, which indicates that the SARS-CoV-2 virus may reach the brain via the hematogenous pathway or through the ethmoid plate to the olfactory bulb, ie. the gateway to the CNS. Psychotic symptoms typical of schizophrenia were observed in some patients after withdrawal of delirium symptoms [7,8]. In addition, the isolation of SARS-CoV-2 from the cerebrospinal fluid (CSF) suggests that the virus may attack the nervous system directly, causing damage also in the form of psychotic symptoms [9]. In the UK, 153 patients who contracted COVID-19 were diagnosed with comorbid neurological or psychiatric disorders, including 10 cases of first-onset psychoses, 6 cases of dementia, and 4 cases of bipolar disorder, which seems to constitute clear evidence that this coronavirus leads to development of mental disorders [10]. However, psychotic symptoms may appear as a complication not only in the course of infection with coronavirus, but also other pathogens. To that end, CNS pathologies have been reported in infections caused by HIV (resulting in organic psychoses [11]), *Borrelia burgdorferi* [12], *Toxoplasma gondii* [13], HCV [15], *Treponema pallidum* [16], in Creutzfeldt-Jakob disease [14] or in the course of tuberculosis [17] and various other pathogens, such as Epstein-Barr virus [18], *Brucella melitensis* [19], Ebola virus [20], measles virus [21,22], rabies virus [23,24], malaria-causing protozoa [25]. There are numerous more pathogens, and those penetrating into the CNS or the cerebrospinal fluid can

cause encephalitis, which in turn may lead to onset of isolated psychoses or disturbance of consciousness. The latter may also appear as a complication of any of the infectious diseases affecting physical condition and therefore should be treated in infectious diseases hospitals or internal medicine departments. Given the above, in the case of suspected infection with a specific pathogen, it is of paramount importance to conduct a detailed diagnostics to identify the underlying cause of psychotic symptoms or disturbances of consciousness. The presence of any one of the above pathogens is an indication for an infectious disease or internal medicine consultation, so that effective treatment can be applied. At the same time, there is an obligation to report the infection to the Sanitary and Epidemiological Station, as of the Act of 5 December 2008 on the prevention and combating of infections and infectious diseases in humans, with subsequent updates [26].

## CONCLUSIONS

This paper highlights how greatly important it is to know and follow the guidelines regarding the referral of a patient with a quarantine obligation to the psychiatric infectious ward. Not all patients in quarantine require hospital treatment. If they fail to meet criteria of art. 23 or 24 of the Mental Health Protection Act, they may receive outpatient treatment and undergo quarantine at home or in another designated place. Therefore, familiarity with the above guidelines by the referring physicians (or other persons) will help save the patient additional stress linked with the potential refusal of admission and transportation back to the place where they were initially brought from. It will also reduce the risk of unnecessary exposure of medical staff to possible contact with coronavirus. Although in principle quarantined patients have no confirmed infection and are usually asymptomatic, the risk of infection may in fact be higher. It should also be remembered that the attending physician examining the patient must use appropriate personal protective equipment (including overalls or scrubs, FFP3 masks) at all times. This applies to all other persons who participate in the transportation to or examination of patients at the Admissions Room. Therefore, un-

justified referral of patients to psychiatric infectious wards generates unnecessary financial burden, linked with the costs of transport and the use of protective equipment, especially in a context where any timeframe of the current epidemic in Poland remains unknown.

## REFERENCES

1. <https://sipip.szczecin.pl/wp-content/uploads/2020/03/Dodatkowe-zalecenia-MZ-psychiatria-covid-19-mb-2-po-PG-dp-002.pdf>;
2. <http://isip.sejm.gov.pl/isap.nsf/download.xsp/WDU20200000375/O/D20200375.pdf>
3. <https://pacjent.gov.pl/koronawirus/abc-kwarantanny>
4. <http://wsse.szczecin.pl/glowny-inspektorat-sanitarny-przypomina-zasady-dotyczace-opuszczania-kwarantanny/>
5. <https://www.nfz.gov.pl/aktualnosci/aktualnosci-centrali/przekazywanie-poprzez-ewus-informacji-o-kwarantannie,7669.html>
6. <https://www.mp.pl/pacjent/choroby-zakazne/koronawirus/koronawirus-warto-wiedziec/230780,covid-19-co-powinismy-wiedziec-o-kwarantannie-i-izolacji>