

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.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active. Contents lists available at ScienceDirect



Psychiatry Research



The impact of COVID-19 on acute psychiatric inpatient unit

Dear editor

The novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was first detected in Wuhan, China, in late 2019. Since then, due to its high basic reproduction number, it has rapidly spread worldwide, reaching the status of pandemic on March 12th, 2020, as declared by the WHO.

The COVID-19 outbreak has been a major challenge for hospitals facing an unseen flood of patients to their emergency departments. Health care workers have adapted in a timely manner to the new epidemiological situation despite the lack of human resources and supplies. Nonetheless, the Mental Health System has not been oblivious to this unique situation. Psychiatry outpatient clinics have implemented telemedicine protocols by turning most of their consultations into video or phone conferences (Arango, 2020), but unfortunately this response cannot be applied to Acute Psychiatric Inpatient Units. These units are built with a multitude of factors related to the physical structure, distribution of spaces or protection materials, that make the virus difficult to contain: they lack respiratory isolation rooms, doors are firmly closed, wards are poorly ventilated and some patients have shared rooms, among others. Moreover, mental health staff often has inadequate training on the management of respiratory infectious diseases, which adds to some features of patients with pre-existing mental health conditions, such as inadequate insight or psychomotor excitement, being unable to practice infection control measures, as well as limited awareness regarding the risk of infection, that may contribute to the transmission of COVID-19. In fact, it has been evidenced that psychiatric patients are more susceptible to respiratory infections than general population (Xiang et al., 2020).

We are also facing new diagnostic challenges, as many patients admitted to the psychiatric ward are simultaneously been treated for COVID-19. Some drugs used to treat the SARS-CoV-2 pneumonia are associated with neuropsychiatric adverse events, which must be taken into consideration in the differential diagnosis. They can also have lifethreatening interactions with psychotropic drugs, leading to increased toxicity and undesirable side-effects, such as QT interval prolongation (Uvais, 2020). Hidroxicloroquine, lopinavir/ritonavir and corticosteroids can cause from mild complications, such as mood lability, depression or nervousness, to severe manifestations including psychosis, excitement and delirium (Abers et al., 2014; Oray et al., 2016; Uvais, 2020). Additionally, we ought to be aware of other atypical neurological symptoms caused by SARS-CoV-2 neurotropism, as a recent case of encephalitis has already been reported (Moriguchi et al., 2020). Furthermore, complementary treatments such as psychological and occupational therapy, family accompaniment or coordination with the outpatient clinics have been reduced or abolished. Similar difficulties have been described in delivering electroconvulsive therapy because of the shortage of personal protective equipments for healthcare staff who cannot perform such essential therapy in safe conditions (Tor et al., 2020). Regrettably, because of the shortage of isolation rooms for SARS-CoV-2 positive cases who suffer from mental illness decompensation comorbidities, physical restraint practices could increase in order to guarantee confinement and infection control measures. All of these aspects above sadly seem to contribute to hinder inpatients' recovery process.

The COVID-19 pandemic will probably lead to unprecedented changes in our National Health Care System, as well as in the Mental Health System. We call for the creation of state policies that mitigate the health impact of such catastrophe, with urgency in relation to patients at Acute Psychiatric Inpatient Units. These policies should include contingency plans alongside the redesign of healthcare settings to ensure that they will be suitable for new future outbreaks. Despite the ongoing health crisis, certain changes must be undertaken if we want to continue bringing acceptable healthcare for individuals with mental disorders.

Declaration of Competing Interest

The authors declare they have no competing conflicts of interest.

References

- Abers, M.S., Shandera, W.X., Kass, J.S., 2014. Neurological and psychiatric adverse effects of antiretroviral drugs. CNS Drugs 28, 131–145. https://doi.org/10.1007/s40263-013-0132-4.
- Arango, C., 2020. Lessons learned from the coronavirus health crisis in Madrid, Spain: how COVID-19 has changed our lives in the last two weeks. Biol. Psychiatry. https:// doi.org/10.1016/j.biopsych.2020.04.003.
- Moriguchi, T., Harii, N., Goto, J., Harada, D., Sugawara, H., Takamino, J., Ueno, M., Sakata, H., Kondo, K., Myose, N., Nakao, A., Takeda, M., Haro, H., Inoue, O., Suzuki-Inoue, K., Kubokawa, K., Ogihara, S., Sasaki, T., Kinouchi, H., Kojin, H., Ito, M., Onishi, H., Shimizu, T., Sasaki, Y., Enomoto, N., Ishihara, H., Furuya, S., Yamamoto, T., Shimada, S., 2020. A first case of meningitis/encephalitis associated with SARS-Coronavirus-2. Int. J. Infect. Dis. https://doi.org/10.1016/j.ijid.2020.03.062.
- Oray, M., Abu Samra, K., Ebrahimiadib, N., Meese, H., Foster, C.S., 2016. Long-term side effects of glucocorticoids. Expert Opin. Drug Saf. 15, 457–465. https://doi.org/10. 1517/14740338.2016.1140743.
- Tor, P.C., Phu, A.H.H., Koh, D.S.H., Mok, Y.M., 2020. ECT in a time of COVID-19. J ECT. https://doi.org/10.1097/YCT.00000000000690.
- Uvais, N.A., 2020. The risks of prescribing hyodroxychloroquine in COVID-19–infected patients with schizophrenia. Prim Care Comp. CNS Disord. 22. https://doi.org/10. 4088/PCC.20com02635 0-0.
- Xiang, Y.-T., Zhao, Y.-J., Liu, Z.-H., Li, X.-H., Zhao, N., Cheung, T., Ng, C.H., 2020. The COVID-19 outbreak and psychiatric hospitals in China: managing challenges through mental health service reform. Int. J. Biol. Sci. 16, 1741–1744. https://doi.org/10. 7150/ijbs.45072.

Daniel Hernández-Huerta^{a,*}, Elena Begoña Alonso-Sánchez^a, Carmen Aldara Carrajo-Garcia^a, José Manuel Montes-Rodríguez^{a,b,c} ^a Department of Psychiatry, University Hospital Ramón y Cajal, Ctra. Colmenar Viejo, km 9.100, CP 28034, Madrid, Spain ^b Ramón y Cajal Institute for Healthcare Research (IRYCIS), Spain ^c Biomedical Research Networking Centre in Mental Health (CIBERSAM),

https://doi.org/10.1016/j.psychres.2020.113107

Received 5 May 2020; Received in revised form 14 May 2020; Accepted 16 May 2020 Available online 19 May 2020

0165-1781/ © 2020 Elsevier B.V. All rights reserved.



Psychiatry Research

Spain E-mail address: daniel.hernandez@salud.madrid.org (D. Hernández-Huerta).

^{*} Corresponding author.