

Management measures for non-medical staff on psychiatric hospital wards during the COVID-19 pandemic

A notice issued by the National Health Commission in China on 18 March 2020 highlighted the need for psychological counselling for those affected by COVID-19, vulnerable groups, health workers and those fighting the virus on the frontline.¹ Data shows that 323 patients with severe mental disorders had been diagnosed with COVID-19 across the country as of 19 February 2020.² The development of an epidemic poses great challenges for psychiatric hospitals.

There are visitors and non-medical staff who work in hospitals, such as cleaners, who have no medical experience or knowledge about prevention of infectious diseases. In order to ensure the safety of in-patients and staff, it is necessary to formulate management measures for non-medical staff.

First, there needs to be strict implementation of a system for non-medical staff to sign in and out of the ward. The following details should be entered into a table: name, date of going out, time of going out, reason for going out, estimated return time, actual return time, temperature at return, exact location of outing, etc. They can leave the ward only after a nurse has signed it.



Second, it is essential to follow procedures formulated by the wards and service providers. Wards should undertake temperature monitoring of non-medical staff at least twice a day. Wards should be responsible for monitoring the non-medical staff's work, including the wearing of protective clothing and ensuring that proper hand washing is carried out. Cleaners are required to clean and disinfect tableware and dining tables after meals. Staff need to strictly implement management regulations when transporting patients' specimens. Unless essential, wards and service providers should not replace permanent staff with temporary or agency staff. There must be epidemiological screening of new recruits to ensure that these personnel do not have a history of epidemiological exposure, fever or any respiratory symptoms.

Third, wards need to provide training and guidance. The ward's head nurse needs to consider the different educational levels of non-medical staff when developing and undertaking training regarding epidemic prevention knowledge and skills to ensure all training is appropriate. The training needs to focus on disinfection, isolation, hand hygiene and wearing protective clothing. The responsible nurse is in charge of daily guidance for non-medical staff. When problems are identified with epidemic prevention they should correct issues without delay.

Fourth, wards and service providers need to work together on management supervision. The ward's head nurse needs to evaluate the impact of training on non-medical staff daily. Service provider managers need to check the results of training and keep corresponding records. The head nurse of the department needs to supervise the work of non-medical staff in wards under their jurisdiction. Then, they need to check the preventive knowledge and skills of the non-medical staff members and report the results to the director of nursing. The chief manager needs to undertake special inspections to assess the mastery of epidemic preventive knowledge, skills and the quality of work in the hospital on a weekly basis.

Finally, it is important to keep an eye on the psychological status of non-medical staff on wards. On account of the long-term exposure to a dangerous environment, coupled with patients' uncooperative attitudes, loud yelling or violent behaviour, their visitors and caregivers are prone to psychological difficulties.³ As cleaners frequently enter or leave wards, the exposure risk increases. If there are any signs of anxiety or panic, non-medical staff should receive psychological interventions to help them properly handle negative feelings.

Recently, the number of cases of COVID-19 outside of China has become very serious. This letter aims to formulate epidemic prevention and control measures for non-medical workers in psychiatric hospitals. It is hoped that these measures will be of value for both domestic and foreign epidemic prevention efforts.

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Declaration of interest

None.

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- 1 National Health Commission of the People's Republic of China. *Mental Health Highlighted as China sees Progress in Epidemic Control*. China NHC, 2020. Available from: http://en.nhc.gov.cn/2020-03/20/c_78022.htm.
- 2 National Health Commission of the People's Republic of China. *Psychiatric Hospitals Should Better Care for Mental Patients during Novel Coronavirus Outbreak*. China NHC, 2020. Available from: http://en.nhc.gov.cn/2020-02/19/c_76701.htm.
- 3 Hilton NZ, Ham E, Dretzkat A. Psychiatric hospital workers' exposure to disturbing patient behavior and its relation to post-traumatic stress disorder symptoms. *Can J Nurs Res* 2017; **49**: 118-26.

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Clozapine and COVID-19

The COVID-19 pandemic presents psychiatrists prescribing clozapine with complexities over and above the general difficulties already described among Chinese psychiatric in-patients.¹ Some common initiation effects of clozapine: isolated fever, tachycardia or a mildly raised C-reactive protein² may be difficult to differentiate from intercurrent infection, including COVID-19.³ Other laboratory anomalies may add to confusion. Given COVID-19 infection deaths that are not the result of acute respiratory distress syndrome are often from

fulminant myocarditis, for which a raised troponin is a poor prognostic feature, troponin levels taken routinely during clozapine initiation will need to be interpreted carefully. However, while leucopenia is a reported blood dyscrasia with COVID-19, to date neither neutropenia nor agranulocytosis is.

In the absence of an antibody test for COVID-19⁴ we rely on reverse-transcriptase polymerase chain reaction COVID-19 testing, which does not have 100% sensitivity in the initial phase of infection, so a single negative test does not exclude infection. Once an antibody test becomes available it will be a useful addition to pre-clozapine investigations.

Comorbidities such as diabetes, hypertension, respiratory illness and cardiovascular disease are very common in patients taking clozapine but are associated with adverse outcomes in the event of COVID-19 infection, including increased mortality rates. It is not known whether the antibody deficiency described in patients taking clozapine will further compromise this vulnerable group.⁵ These are not, however, indications to stop clozapine, which itself has serious adverse consequences. Rather patients need clear advice and, if possible, assistance regarding self-isolation and other precautions advised. Obesity and sleep apnoea may also contribute to poor outcomes and continuous positive airway pressure treatment, which can be an aerosol-generating procedure,⁶ may be a risk to staff.

Individuals already established on clozapine and managed in the community may require changes to their management. In view of recommendations for social distancing, the use of clozapine clinics for routine blood testing should be reconsidered. Instead, blood tests may be better performed in patient's homes, with staff using personal protective equipment and at, or near, the maximum intervals permitted. While the standard blood monitoring frequencies are at weekly (weeks 1-18), fortnightly (weeks 19-52) and four-weekly (over 52 weeks) intervals, clozapine can still be dispensed and administered with satisfactory monitoring at 14-, 21- and 42-day intervals, respectively.

Inevitably many patients taking clozapine will present with flu-like symptoms. An urgent full blood count will be required to exclude neutropenia with appropriate action. Many, however, will have another cause and so the evolving National Health Service recommendations regarding isolation and hopefully testing for COVID-19 infection should be followed. The combination of flu-like symptoms, chest pain and shortness of breath will, as community prevalence of COVID-19 increases, be much more likely to be because of COVID-19 than clozapine-induced myocarditis, except perhaps within the first 60 days of treatment.⁷ However, such a presentation will still need investigation and cessation of clozapine may on occasion be required as well as urgent general medical assistance. Careful documentation of symptom profiles and investigations will aid subsequent decisions regarding clozapine re-challenge. In the event of COVID-19 infection the acute-phase reaction may result in reduced activity of cytochrome P450 1A2, raising clozapine levels and so an urgent trough clozapine level will be needed with a reduction in clozapine dose if required. This effect may be amplified if hospital admission is indicated necessitating abrupt change in smoking habits.

In summary; COVID-19 presents us with extreme difficulties regards clozapine initiation, the risks of COVID-19

are insufficient to justify stopping clozapine, an action which presents its own serious problems, precautions must be taken now to help protect our high-risk patients as COVID-19 infection may jeopardise both their physical and mental health.

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Standing with our medical colleagues

Like many of us I am increasingly concerned about the possible effects of coronavirus on myself, my family and our community and patients. With family in Italy, I am mindful of the need there for other medical professionals to be brought in to work alongside their acute medical colleagues. This has included those more distant from acute medical work now, such as pathologists and even in some cases psychiatrists.