

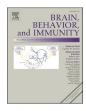
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Viewpoint

Viewpoint | European COVID-19 exit strategy for people with severe mental disorders: Too little, but not yet too late

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1. The triple-H problem: heterogeneous, high-risk, and hard-to-reach

On December 21st 2020, the European Medicines Agency has approved the first SARS-Cov-2 vaccine for authorisation across the European Union. A mere two weeks later, the second vaccine was approved on January 6th 2021. This news has inspired hope in the face of a second, potentially deadlier, wave of COVID-19 that is currently surging across Europe. In record time, several countries have initiated their SARS-CoV-2 vaccination plans, yet few have adopted a specific policy for people with severe mental illness (SMI). As clinicians and researchers dedicated to the study of the neuro-immunological underpinnings of mental health disorders, we hereby express our serious concern that the current COVID-19 exit strategies will be "too little, too late", or simply

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ineffective for the more than one in six people across the European Union who currently suffer from one or more severe mental disorders. Individuals with SMI should be recognized as a heterogeneous, highrisk, and hard-to-reach priority group for whom regular pandemic management and vaccination plans are not well-adapted (Warren et al., 2020). We therefore strongly urge the involvement of professional and scientific organisations of mental health providers, as well as users, in both national and European COVID-19 exit strategy efforts.

2. Immune disturbances and accelerated ageing

People with mental disorders have a considerably higher chance of being infected with COVID-19 (Taquet et al., 2020; Wang et al., 2020), and when infected they are at increased risk of a severe (Lee et al., 2020) or fatal course of illness (Li et al., 2020; Nemani et al., 2020). Importantly, their risk extends beyond the immediate somatic morbidity, as follow-up studies indicate that patients with a history of psychiatric disorders are significantly more likely to experience persistent and clinically relevant psychiatric complications three months after the acute infection (De Lorenzo et al., 2020; Mazza et al., 2020; Vindegaard and Benros, 2020). Although the causes for this increased COVID-19related morbidity are multifactorial, initial evidence suggests this risk is aggravated by immunological disturbances related to the psychiatric illness itself (Mazza et al., 2020) or its treatment.

Moreover, SMI patients suffer from a reduced life expectancy as well as a high prevalence of other physical conditions which increase the risk of serious consequences of COVID-19 infection, such as obesity, diabetes, chronic lung disease, and hypertension (De Hert et al., 2011). Several psychiatric illnesses have been recognized as disorders of accelerated ageing, including an increased senescence of the immune system (Bersani et al., 2019). Most countries currently apply an age cutoff to delineate vaccination priority or high-risk groups (e.g. people over 65 or 75 years old). In view of our neurobiological understanding of severe mental disorders, we argue this age limit should be lowered by at least 10 years for SMI patients.

3. Minding the gaps

It is well known that patients with mental disorders face significant barriers to appropriate healthcare for somatic health problems, including the treatment for COVID-19 (Ji et al., 2020). This treatment gap results from multiple psychosocial consequences of the mental disorder, including stigma and discrimination of patients with mental health problems. Maximal effort should therefore be invested towards corrective and preventive actions. Yet an equally problematic gap in the vaccination rates of previous immunization regimens has been documented in SMI (Miles et al., 2020) and already preliminary evidence from the UK indicates SMI patients are also falling behind in COVID-19 vaccination coverage compared to other priority groups (MacKenna et al., 2021). Targeted interventions and sustained effort will clearly be needed to achieve sufficient vaccination coverage against SARS-CoV-2 in people with mental disorders (Warren et al., 2020).

Furthermore, previous studies indicate that individuals with SMI can have an aberrant response to infectious agents (Dickerson et al., 2019) and a decreased response to immunization (Irwin et al., 2011). These responses are likely to derive from the immunological disturbances described above. In the case of COVID-19 the response to immunization may be further altered by a high rate of exposure to other, potentially cross-reacting coronaviruses documented in SMI (Severance et al., 2011). Due to these factors it is imperative that the immune response to SARS-CoV-2 vaccination be carefully monitored in individuals with SMI to determine if regimens developed for other populations provide adequate protection in these individuals.

Finally, and despite concerted efforts by many mental health providers, the care for patients with psychiatric disorders has been severely hampered by the COVID-19 pandemic. Mental health services should revert to standard care as soon as possible to reduce further damage caused by the decreased availability or accessibility of care. Psychiatric services and staff are often organised in a decentralised structure and/or separately from somatic healthcare services and therefore prone to be overlooked in pandemic outbreak plans. As an urgent public health measure, it is crucially important that psychiatric services and staff are adequately equipped and prioritised along with other frontline healthcare workers. We are glad to observe that several European countries have indeed already started to vaccinate mental healthcare workers.

4. Conclusion

The COVID-19 exit strategy needs to encompass individuals with SMI, who make up a significant portion of the population while also representing a heterogeneous, high-risk and hard-to-reach group. Tailored pandemic management and vaccination optimization and monitoring plans need to be created to cater to this group as an immediate public health priority. In the Netherlands, input from the Dutch psychiatric association has compelled the ministry of health to update their national vaccination plan. In a governmental letter circulated on January 4th 2021, individuals with mental disorders who are over the age of 60, suffering from a severe psychiatric disorder, receiving involuntary treatment, or residing in inpatient psychiatric or collective living facilities will be given priority for vaccination. We hope other countries will follow this example (De Jonge and Nederlands Ministerie van Volksgezondheid, 2021).

Declaration of Competing Interest

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