

Prioritizing COVID-19 vaccination for people with addictive disorders

Por una priorización de las personas con trastornos adictivos en la vacunación frente a la COVID-19

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Despite the risks involved in relying solely on COVID-19 vaccines to eradicate the pandemic, given uneven vaccine rollout and acceptance, the limited duration of immunity and the emergence of new SARS-CoV-2 variants, mass vaccination against COVID-19 is key to returning to what was normal life before the appearance of SARS-CoV-2 (Oliu-Barton et al., 2021).

At the time of writing, the rate of vaccination against COVID-19 continues to increase in Spain, with just over 10% of the population already fully vaccinated. However, within this context, the prioritisation of certain population groups in the different stages or phases of Spain's COVID-19 vaccination strategy, as set out in its technical paper (Grupo de Trabajo Técnico de Vacunación COVID-19, de la Ponencia de Programa y Registro de Vacunaciones, 2020) and successive updates, does not take into account the evidence supporting the need to prioritise COVID-19 vaccination for people with substance use disorder (SUD) (e.g., Allen et al., 2020; Wang, Kaelber, Xu & Volkow, 2021).

The only reference to this group of people in the paper, or in successive updates, regarding prioritisation among the different occupations (e.g., health and social-health

workers), age groups (e.g., those aged 65 years or over), vulnerability to socioeconomic circumstances (e.g., living in substandard housing) or high-risk health conditions (e.g., immunosuppression after solid organ transplantation) is found, curiously, under the heading *People in vulnerable populations due to socioeconomic situation* and not in the section *People with high-risk [health] conditions*, a section which does include, on the other hand, the specific subgroup of "smokers". In any case, this mention in the original paper has not, to date, led to people with SUD being prioritised in any of the subsequent updates of the multiple and different population groups to be vaccinated.

This is particularly serious when one considers, as highlighted above, the available evidence on the increased SARS-CoV-2 infection risk and the greater severity and mortality of COVID-19 in people with SUD (Allen et al., 2020; Wang et al., 2021). More specifically, the retrospective case-control study by Wang et al. (2021), based on the electronic medical records of more than 73 million unique patients, shows that those with a recent diagnosis of SUD (e.g., diagnosed in the last year) have a significantly higher risk, adjusted for age, gender, race and insurance type, of contracting COVID-19 (adjusted Odds Ratio [aOR] = 8.699 [8.411-8.997]); this is highest in opioid use disorder (aOR

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= 10.244 [9.107-11.524]) followed by tobacco use disorder (aOR = 8.222 [7.925-8.530]). Similarly, COVID-19 patients recently diagnosed with SUD have significantly worse outcomes (hospitalisation: 43.8%; death: 9.5%) than other COVID-19 patients (30.1% and 6.6%, respectively). The outcomes for COVID-19 patients with lifetime SUD diagnosis (41.0% and 9.6%, respectively) are also significantly worse compared to COVID-19 patients without SUD. It is possible that these results can be explained by the multiple comorbidities – many of which are known risk factors for higher COVID-19 morbidity and mortality – usually presented by people with SUD, with the study itself showing these patients having a significantly higher prevalence of different comorbidities (e.g., chronic obstructive pulmonary disease, diabetes, cardiovascular diseases, HIV infection). However, this possibility should not prevent such results from being considered in the decision-making processes regarding the definition of the population groups to be prioritised in the vaccination strategy.

In any case, a study recently published online (Allen et al., 2020) suggests that the association between SUD and higher COVID-19 morbidity and mortality would be independent of comorbidity. This study had a retrospective case-control design and was carried out with almost 200,000 patients who had taken the PCR diagnostic test for SARS-CoV-2 in four New York hospitals. It shows that COVID-19 patients with SUD were more at risk, adjusted for age, gender, race and comorbidities, of being both hospitalized (aOR = 4.35 [3.30-5.73]) and admitted to an ICU (aOR = 2.50 [1.92-3.25]) and even, in the case of patients with SUD and overdose history, of dying from COVID-19 (aOR = 3.03 [1.70-5.43]).

Given these data, and paraphrasing Prado-Abril (2021) regarding the vaccination against COVID-19 of patients with severe mental disorder, it is clear that the only justification for not prioritising access to the vaccination process for people with SUD can be issues linked to the stigmatization of SUD and discrimination with respect to other disorders or pathologies of equivalent impact on health.

Conflict of interests

The authors declare no conflicts of interest related directly or indirectly to the content of this article.

References

- Allen, B., El Shahawy, O., Rogers, E.S., Hochman, S., Khan, M.R. & Krawczyk, N. (2020). Association of substance use disorders and drug overdose with adverse COVID-19 outcomes in New York City: January–October 2020. *Journal of Public Health*. Advance publication online. doi:10.1093/pubmed/fdaa241.
- Grupo de Trabajo Técnico de Vacunación COVID-19, de la Ponencia de Programa y Registro de Vacunaciones (2020). *Estrategia de vacunación frente a COVID-1 en España*. Madrid: Consejo Interterritorial – Sistema Nacional de Salud. Retrieved at https://www.msbs.gob.es/profesionales/saludPublica/prevPromocion/vacunaciones/covid19/docs/COVID-19_EstrategiaVacunacion.pdf.
- Oliu-Barton, M., Pradelski, B.S.R., Aghion, P., Artus, P., Kiebusch, I., Lazarus, J.V.,... Vanderslott, S. (2021). SARS-CoV-2 elimination, not mitigation, creates best outcomes for health, the economy, and civil liberties. *Lancet*, 397, 2234-2236. doi:10.1016/S0140-6736(21)00978-8.
- Prado-Abril, J. (2021). ¿Por qué habría que priorizar la vacunación para la COVID-19 en personas con trastornos mentales graves? *Papeles del Psicólogo*, 42, 160.
- Wang, Q.Q., Kaelber, D.C., Xu, R. & Volkow, N.D. (2021). COVID-19 risk and outcomes in patients with substance use disorders: Analyses from electronic health records in the United States. *Molecular Psychiatry*, 26, 30-39. doi:10.1038/s41380-020-00880-7.