

Influenza vaccination: an ally to mitigate influenza-associated risks during the coronavirus pandemics

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Dear Editor,

A possible co-circulation of the influenza virus with the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) during the upcoming 2020-2021 influenza season could generate a particularly challenging situation for patients, clinicians, and public health systems worldwide. Influenza vaccination plays a vital role in preventing poorer health outcomes in vulnerable populations. This communication aims to raise awareness about the lack of association between influenza vaccination and a higher risk of coronavirus-related severe outcomes.

Vaccination is one of the most effective public health strategies against influenza, preventing thousands of deaths each year. The World Health Organization (WHO), the European Commission, and many other institutes worldwide highly recommend seasonal influenza vaccination for people at risk of serious complications, including the elderly, pregnant women, young children, healthcare professionals, and population with certain underlying chronic diseases [1-3].

A peculiar unprecedented influenza season may be upon us, with a possible co-occurrence of a new wave of coronavirus disease 2019 (COVID-19) pandemic of unpredictable severity. Influenza and COVID-19 can cause similar clinical symptoms, including life-threatening pneumonia. Correct diagnosis is the basis for the proper management of the patients, highlighting the need to implement specific diagnostic procedures. Furthermore, it is uncertain how SARS-CoV-2 and influenza virus would interact when both co-exist in the same individual, and what impact such interaction would have on mortality and other health outcomes. Public health systems may face the need to stretch their capacities in terms of human resources, material, health policies, and costs, in both primary care and hospital settings. As we know so far, vaccination is the best intervention to prevent influenza outbreaks and avoid an overload of healthcare services during a possible simultaneous COVID-19 pandemic [4-6].

It is essential to ensure a high coverage vaccination rate in the vulnerable population, especially in the elderly, in order to establish herd immunity [7]. Strengthening people's trust in the effectiveness and security profile of influenza vaccination programs could help in this direction [8]; this is important, as many people misbelieve that influenza vaccines can often produce severe side effects. A recent study in Canada, using information from seven influenza seasons (2010-2017), reported that vaccination was protective against influenza-like illness when the aetiological agent was an influenza virus; in cases of a non-influenza virus, including coronaviruses, there was no positive neither negative effect [9]. The authors concluded that influenza vaccination did not negatively affect seasonal coronavirus risk. In the PRECOVID study, conducted in Spain during the ongoing pandemics, including all the 4412 laboratory-confirmed covid-19 patients of the Aragon region, we found that influenza vaccination was not associated with a higher likelihood of mortality, in men (age-adjusted odds ratio [OR], 1.24; 95% confidence interval [CI], 0.95-1.61) and women (OR, 1.23; 95% CI, 0.94-1.61) [10].

To the best of our knowledge, there is no evidence to associate influenza vaccination with poorer prognosis in covid-19 patients. Efforts should be made to mitigate preventable risks during the upcoming 2020-2021 influenza season. We strongly encourage healthcare professionals to follow the recommendations of the WHO regarding influenza vaccination.

NOTES

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Conflict of interests

The authors declare that they have no conflict of interest.

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