



LETTER TO THE EDITOR

Influenza vaccination and critical patient protection: Responsibility of healthcare workers[☆]

Vacunación antigripal y protección del paciente crítico: responsabilidad de los profesionales sanitarios

Dear Editor:

We read with interest the study conducted by Marin-Corral et al.¹ and based on the recommendation of reinforcing the annual vaccination campaigns in populations at risk, we wish to make our contribution and emphasize the importance of influenza vaccination in healthcare providers to avoid spreading the infection.

Each year health organizations face seasonal outbreaks of influenza and the corresponding morbimortality associated with these outbreaks. It is estimated that the worldwide incidence of influenza infections is 5.3 cases for every 1000 people and 58,193 people die every year due to this infectious disease.²

In Spain, the seasonal flu epidemic of 2017–2018³ generated 5977 confirmed hospitalizations for severe complications of influenza virus infection (HSCIVI) out of which 1281 patients (21.8%) were admitted to intensive care units (ICU); a percentage similar to the one from last season and significantly lower than the one from previous seasons when the influenza A (H1N1) pdm09 virus and influenza A (H3N2) variants were prevalent.

Influenza epidemics are usually managed with vaccination campaigns to prevent cases and complications from happening. Vaccines are officially recommended in our country for certain groups at risk such as the elderly, patients with chronic conditions and institutionalized populations.⁴

The vaccination of healthcare providers is an effective strategy to reduce influenza-related mortality in hospitalized patients. And yet despite all this, the rates of immunization among healthcare providers are modest. During the influenza vaccination campaign of 2017–2018 in Castile and León the prevalence of immunization among healthcare providers was 30.1% and lower compared to the

country's prevalence (31.3%). The highest rate of immunization reported was seen among primary care physicians compared to special care providers and also higher in healthcare providers compared to non-healthcare professionals. The reasons given by several studies⁵ to explain these rates of immunization are diverse and have to do with organizational barriers associated with the lack of time and accessibility to vaccines, doubts on their effectiveness, fears about side effects, and other personal reasons.

The strategies implemented to increase influenza immunization among healthcare providers are based on informing and training these professionals, although several studies⁶ claim that establishing mandatory vaccination campaigns is the most effective individual intervention of all followed by a declaration of refusal of vaccines in a vaccine information statement. Other interventions such as greater availability, better awareness of what vaccines represent, and even the implementation of programs with incentives are less effective strategies.

The negative impact due to the low rate of immunization among healthcare providers in the public system and, in particular, in patients hospitalized at ICUs should be approached by legislators, and specialists in occupational safety and health, especially after the confirmation that adequate vaccination strategies have a positive impact on everyone's health.⁴

References

1. Marin-Corral J, Climent C, Muñoz R, Samper M, Dot I, Vilà C, et al. Patients with influenza A (H1N1)pdm09 admitted to the ICU. Impact of the recommendations of the SEMICYUC [Article in English, Spanish]. *Med Intensiva*. 2018;42: 473–81.
2. GBD 2016 Lower Respiratory Infections Collaborators. Estimates of the global, regional, and national morbidity, mortality, and aetiologies of lower respiratory infections in 195 countries, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet Infect Dis*. 2018, [http://dx.doi.org/10.1016/S1473-3099\(18\)30310-4](http://dx.doi.org/10.1016/S1473-3099(18)30310-4).
3. Centro Nacional de Epidemiología. Instituto de Salud Carlos III. Informe de Vigilancia de la Gripe en España. Temporada 2017–2018 (Desde la semana 40/2017 hasta la semana 20/2018); 2018. Available from: http://vgripe.isciii.es/documentos/20172018/InformesAnuales/Informe_Vigilancia_GRIPE_2017-2018.27julio2018.pdf [accessed 30.10.18].
4. Perez Rubio A, Eiros Bouza JM. Impacto económico y sanitario de la utilización de vacuna antigripal adyuvada con MF59en población mayor de 65 años en España. *Rev Esp Quimioter*. 2018;31:43–52.

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5. Boey L, Bral C, Roelants M, de Schryver A, Godderis L, Hoppenbrouwers K, et al. Attitudes, beliefs, determinants and organisational barriers behind the low seasonal influenza vaccination uptake in healthcare workers—across-sectional survey. *Vaccine*. 2018;36:3351–8.
6. Lytras T, Kopsachilis F, Mouratidou E, Papamichail D, Bonovas S. Interventions to increase seasonal influenza vaccine coverage in healthcare workers: a systematic review and meta-regression analysis. *Hum Vaccin Immunother*. 2016;3:671–81.

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Reply to "Influenza vaccination and critical patient protection: Responsibility of healthcare workers"☆

En respuesta a «Vacunación antigripal y protección del paciente crítico: responsabilidad de los profesionales sanitarios»

Dear Editor:

In the first place, we wish to thank the authors of "Influenza vaccination and critical patient protection: responsibility of healthcare workers" for their interest and for quoting our paper.

Infections caused by influenza virus can be prevented through common vaccination in our setting.¹ It is a especially effective public health measure capable of preventing the disease, hospital admissions and infection-induced mortality.^{2,3}

Although there are not too many studies on this regard, nosocomial or hospital-acquired influenza infections have already been reported. A recent study conducted by our group⁴ revealed a 9.3% incidence rate of hospital-acquired influenza A (symptom onset starting on the 7th day of admission) in a cohort of 2421 severe patients admitted to the intensive care unit (ICU). Patients with nosocomial influenza A infections had a clinical profile, showed severity at the ICU admission and different therapeutic requirements compared to patients with community-acquired and in-hospital-acquired infections, which was independently associated with mortality.

This finding stresses the authors' message shown on the title of their letter. We share their opinion on the importance of vaccinating healthcare providers to avoid



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transmitting the infection. We agree that the low influenza immunization of healthcare providers, especially at the ICU setting, should be approached by the authorities in charge of the health policies following recommendations of scientific evidence and from the work health and safety committees of each center. In this sense, at our hospital ICU and thanks to the public campaigns run by the work health and safety service, these rates of influenza immunization have grown among healthcare providers, from 29.5% in 2015 to 38.1% in 2017, especially among doctors (72.2%).

At the ICU setting and in all hospitalization units, the recommendations should go far beyond vaccinating healthcare providers. Everybody who is in contact with these patients should be vaccinated, included the families. Preventive measures should include avoiding the contact of visitors and healthcare providers with the patients' clinical signs, use face masks during the epidemic periods, and follow all hand sanitizing regulations before and after treating the patient.

Preventing the transmission of the influenza virus in hospitals, and especially at the ICU setting, should be a priority goal. In this sense, vaccinating healthcare providers is still one of the key strategies. Also, implementing measures that have proven effective increasing the immunization rate of these professionals (obligatory nature or filling out a refusal to vaccinate declaration) could improve the actual situation.⁵

References

1. Fiore AC, Bridges CB, Katz JM, Cox NJ. Inactivated influenza vaccines. In: Plotkin SA, Orenstein WA, Offit PA, editors. *Vaccines*, 6th ed.; Elsevier: Philadelphia, PA. 2012; p. 257–93.
2. Advisory Committee on Immunization Practices; Centers for Disease Control and Prevention (CDC). Immunization of healthcare personnel: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recomm Rep*. 2011;60:1–45.
3. WHO Regional Office for Europe. WHO Regional Office for Europe Recommendations on Influenza Vaccination during the 2015/2016 Winter Season. 2015. Available from: <http://www.euro.who.int/en/health-topics/communicable-diseases/influenza/publications/2018/recommendations-on-influenza-vaccination-during-the-20182019-winter-season-2018> [accessed 26.10.18].

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