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Could mandatory vaccination increase coverage in health-care Workers? The experience of Bari Policlinico General Hospital

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ABSTRACT

Influenza is a major issue for health-care systems all over the world and health-care workers (HCWs) are a subgroup at increased risk of exposure to respiratory pathogens, including influenza, with potential threat for both their own and their patients' health. Despite this and despite the anti-influenza vaccination being offered to all HCWs, vaccination coverage among them is still low in Europe, generally less than 30%. During 2020s influenza season, influenza vaccination begun mandatory in Puglia (Italy) and Bari Policlinico General Hospital designed an active call system in order to increase its employees' compliance to vaccination. This system was able to determine an increase of vaccination coverage from 23.1% to 77.6%.

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Dear Editor,

Despite important efforts of Public Health institutions, influenza remains a major issue for the health of the population. This is also due to suboptimal vaccination coverage among the target population, even though active vaccination offer has been recommended for many years. Health-care workers (HCWs) are a subgroup at increased risk of exposure to respiratory pathogens, including influenza, with potential threat for their health and for the patients' safety.¹ In fact, infected HCWs could be the source of contagion of both other colleagues and patients.

Influenza epidemics cause a significant increase in sickness absenteeism from work among HCWs. A 2019 Italian study estimated the overall cost of this phenomenon at €1,76M.¹

Vaccination coverage among HCWs is still low in Europe, generally less than 30%, despite several recommendations from international authorities, such as the European Center for Disease Prevention and Control (ECDC). In particular, the ECDC states that a vaccination coverage above 75% of the at-risk population, including HCWs, should be obtained in order to grant an adequate control of the disease.²

In Italy, each of the 20 Regions is responsible for the management of Health-care services. During 2020s influenza season, Puglia adopted the Regional Law 19 June 2018 n. 27 and the Regional Regulation n. 10/2020,³ which provided influenza vaccination as mandatory for HCWs operating in high-risk settings. Bari Policlinico General Hospital is the most important Hospital in the South of Italy, with 1000 beds and >6000 HCWs. Since 2010, influenza vaccination is offered actively and free of charge for Policlinico HCWs. In compliance with Regional Law, Policlinico made anti-influenza vaccination mandatory for HCWs in order for them to be allowed to

operate in the following Operative Units (OUs), considered at high infective risk (Intensive Care Unit, Organ Transplant Center, Hematology and Transplant, Gynecology and Obstetrics, Respiratory System Diseases, Infectious Diseases, Physical and Rehabilitative Medicine, General Medicine, Nephrology, Neonatology, Neurology, Oncology, Emergency Room, Rheumatology).

In order to achieve the highest possible compliance to anti-influenza vaccination, both a vaccination clinic and on-site daily vaccination activities were implemented.

Thanks to this effort, by 15 December 2020, 1634 HCWs operating in Policlinico's high-risk OUs out of 2383 (68.6%) had been vaccinated, while 749 (31.4%) of them had not.

Following this first phase of vaccination campaign, an active call system was activated in order to collect more adhesions among the non-compliant HCWs. A letter, signed by the Head of Vaccination Clinic, the Occupation Physician and the Director of Risk Management Unit, was sent to the non-vaccinated subjects operating in high-risk facilities, inviting them to undergo the vaccination and reminding them of the law requirements for HCWs regarding influenza vaccination. Personnel was also presented with the possibility of being suspended or transferred in other units.

Following this formal reminder, an additional 215 HCWs underwent the anti-influenza vaccination, thus providing a grand total of 1849 (77.6%) vaccinated HCWs against 534 (22.4%) who kept refusing the vaccine. The data were last collected on 25 March 2021.

This coverage was higher than the figure of previous season: in fact, in the same Units, coverage was 23.8% (324/1360) in 2019 and 28.1% (378/1347) in 2018.

In conclusion, mandatory vaccination seems to be a tool consistent with the purpose of increasing the vaccination coverage in HCWs. Our active re-call system adopted the quota of vaccinated HCWs in high-risk OUs by 9%, meaning that approximately one-third of HCWs who had previously refused the vaccination changed their mind after the written reminder. The repetition of the same formula during the next influenza season may achieve even better results, especially with more iterations of the active call to non-compliant HCWs, even implementing other interventions such as declination statements and educational audits, which proved to be highly effective in various studies.⁴

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