

awareness or indifference to the guidelines and data that indicate PPSA are not necessary for neurosurgery patients with drains or devices.¹⁰

The Joint Commission tracks use of prophylactic antibiotics and rates of discontinuation after 24 hours for a number of surgical procedures, but they do not presently do so for neurosurgical procedures.¹¹ It is reasonable to expect they will do so in the future. A combined effort by pharmacists and physicians to establish consensus and develop local practice guidelines can have a tremendous influence on prescribing practices because local guidelines are more likely to be accepted and adhered to than national guidelines.^{9,10} In the absence of such, physicians may allow anecdotal experience to guide their use of PPSA.¹² Pharmacists can employ persuasive techniques (eg, advise practitioners on how to prescribe antibiotics) or restrictive techniques (eg, limit how antibiotics can be prescribed) to scale down the frequency of inappropriate antimicrobial administration. A Cochrane Review found that both interventions were equally effective.¹³

Practice surveys such as this are associated with a number of limitations. Although our cohort was small, we believe that the variety of responses we received effectively demonstrates that institutions are still administering PPSA to neurosurgery patients despite recommendations to the contrary, and that practitioners need more education and local guidelines on use of antibiotic prophylaxis in this population.

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Knowledge, attitudes, and practices of occupational health physicians in the promotion of vaccinations recommended for health care workers: An Italian study



To the Editor:

In Italy, the National Immunization Plan established the vaccinations strictly recommended for health care workers (HCWs). According to Italian law, occupational health physicians (OHPs) are in charge of the vaccine proposal and administration.¹

National figures of the vaccination coverage achieved among HCWs are not available, but there are several ad hoc surveys especially for influenza and hepatitis B vaccinations. In the last 10 years, several studies have investigated coverage for hepatitis B vaccines among HCWs, and the rates always were >80%. Conversely, the coverage for influenza vaccine was constantly low, and standards recommended by the Ministry of Health have not been achieved. Few authors have investigated the immunity for measles, mumps, rubella, and varicella of HCWs and medical students, who are at higher risk of contagion, as recently documented in a nosocomial outbreak of measles in France.^{1–3}

In a survey carried out in 2014, we interviewed OHPs from hospitals of 6 regions of the south of Italy (approximately 14 million

habitants) by a standardized, anonymous questionnaire sent by e-mail. The questionnaire investigated perceptions about the professional risk linked to vaccine-preventable infectious disease and about the risk of HCWs as a source of spread of infectious disease for patients, knowledge of vaccinations recommended in the National Immunization Plan for HCWs, attitude of OHPs in the promotion of vaccines, and opinion on mandatory vaccination for HCWs.

We contacted 258 OHPs; of these, 161 took part in the survey (response rate, 62.4%). Of them, 84 (52.2%) worked in a hospital and were enrolled. Hepatitis B (66.7%), influenza (64.3%), and tuberculosis (42.9%) were reported as the major professional biological risks for HCWs. According to the opinion of 61% of OHPs, HCWs are at higher risk of being a source of contagion of influenza for their patients.

Only 11.9% of enrolled OHPs correctly indicated all vaccinations (hepatitis B, influenza, measles, mumps, rubella, varicella, and pertussis) recommended for HCWs in the National Immunization Plan 2012-2014: 71.4% chose the hepatitis B vaccine, 67.9% chose the influenza vaccine, and only approximately one-third of physicians knew that the measles, mumps and rubella (MMR) and varicella vaccines are recommended for HCWs.

Approximately 56% of respondents proposed HCWs receive the influenza vaccination every year, and 66.7% checked vaccination status during the first medical examination.

Of the interviewed OHPs, 60.7% reported a favorable opinion about the introduction of mandatory vaccination for HCWs.

Questions about the general attitudes about vaccines revealed that 70.2% of OHPs stated that vaccines are useful tools to control or eliminate very important diseases; 4.8% reported that vaccines could be valuable only in some settings, such as developing countries; 4.8% affirmed that natural immunity is more important than vaccine-related immunity; and 20.2% did not refer any opinion.

Our results showed several criticisms in the field of vaccinations for HCWs; in particular, the survey revealed an important lack of knowledge (eg, >80% of OHPs did not know all vaccinations recommended for HCWs, approximately 50% were not able to identify the responsibilities of OHPs in immunization strategies).

Results of our study are consistent with previous observations. In a survey conducted in 2014 among 135 OHPs, Betsch et al documented a dramatic lack of knowledge about vaccination strategies and concluded that reasons for vaccination gaps in HCWs might have their roots in occupational physicians' incomplete knowledge of vaccination recommendations. Attitudes, which are related to misperceptions, also influence which vaccinations are recommended to HCWs. Official recommendations, and not personal attitudes and misconceptions, should guide occupational vaccination behavior.⁴

From a national perspective, the major concern is linked to the training of OHPs: Italian occupational health postdegree schools were for a long time focused on the prevention and management of chemical and physical hazards in works setting, whereas biological risk was not a sufficient part of the background of Italian occupational doctors.

In the scientific literature, there are few studies about the knowledge and attitudes of OHPs regarding vaccinations. Several studies have investigated the attitudes of HCWs toward vaccinations because low immunization coverage among HCWs has been related to personal decisions and not immunization strategies.⁵⁻⁷

Vaccinations are a principal public health tool, and the decision to vaccinate or not must be determined not in a 1-to-1 interaction (OHP vs HCW) but in the public health perspective that has to use all traditional strategies of vaccine promotion (risk communication, active call, recall, and immunization registers) and specific plans for hospital settings, such as the publication of coverage achieved in each hospital ward.

Recently, a decline in the vaccination coverage among newborns has been described, linked to the resurgence of antivaccination movements.⁸ Antivaccination movements often repeat that a reason not to get vaccinated is that few HCWs receive recommended vaccinations. In this scenario, improving vaccination coverage among HCWs is strictly needed for the reliability of the National Health Service.

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An alternative to singing "Happy Birthday": Healthcare provider's rhyme for handwashing time



A literature search on the topic of hand hygiene reveals a plethora of evidence describing the known fact that good hand hygiene is recognized by the Centers for Disease Control and Prevention as the most effective method of preventing hospital-acquired infections.¹