these patients were also had strains resistant to mupirocin and that this could potentially account for the high number of recurrences of colonization seen in our study population. Thus, it is possible that our study underestimates the potential benefit of mupirocin treatment for other patient populations colonized with CA-MRSA. Further studies are needed to help clarify the potential benefit of mupirocin treatment for nasal decolonization among patients with CA-MRSA nasal carriage.

### ACKNOWLEDGMENTS

Potential conflicts of interest. The author reports no conflicts of interest relevant to this article.

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Infect Control Hosp Epidemiol 2008; 29:284-285 © 2008 by The Society for Healthcare Epidemiology of America. All rights reserved. 0899-823X/2008/2903-0016\$15.00.DOI: 10.1086/527452

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# Intervention to Increase Influenza Vaccination Rates Among Healthcare Workers in a Tertiary Teaching Hospital in Brazil

TO THE EDITOR - Annual influenza vaccination is recommended for persons at higher risk for severe disease and complications related to influenza and for persons who live with or care for those at higher risk.1,2 The goal of an influenza vaccination program in a healthcare facility is to prevent transmission of the virus and the illness among those at high risk.1,2 Healthcare workers (HCWs) often continue to work when infected with influenza. In a survey of employees of the Hospital das Clinicas, in Sao Paulo, Southeast of Brazil, 94% of the HCWs stated that they had come to work with influenza-like illness.3 Vaccination of HCWs is associated with a reduction in deaths from pneumonia and deaths from all causes among nursing home patients.4 Occupational health vaccination programs have also been shown to reduce staff illness and absenteeism, prevent workplace disruption, and result in financial savings to sponsoring health institutions.<sup>1,5</sup>

Despite the recommendations, the influenza vaccination rates among HCWs remain low.<sup>1,6</sup> Barriers to vaccine access and misconceptions regarding influenza and the vaccine have been associated with nonvaccination among HCWs. 3,6,7 Interventions to enhance access to vaccination to make it more convenient for the target population have been proposed as a strategy to increase influenza vaccination rates among HCWs.7

In January 2006, a Working Group was constituted at the Hospital das Clinicas to establish a plan of action to address the risk of pandemic influenza. Enhancing the rate of vaccination against seasonal influenza among HCWs was one of the goals proposed by this group.

Hospital das Clinicas is a 2,200-bed tertiary teaching hospital complex (5 buildings and 2 auxiliary hospitals) attached to the University of Sao Paulo School of Medicine. Including permanent and casual staff, employees, students, and volunteers, Hospital das Clinicas has an estimated 20,000 HCWs. Since 1999, annual influenza vaccination has been offered free of charge to all HCWs at the hospital's Immunization Center during working hours. Under this strategy, 1,202 HCWs (6% of the target population) were vaccinated in 2004, and 1,292 (6.5%) were vaccinated in 2005.

The strategy implemented during the 2006 season featured both an educational campaign and a vaccination campaign. The educational campaign addressed influenza and emphasized the importance and safety of vaccination through lectures, informal handouts, fact sheets distributed with employees' paychecks, and posters. The vaccination campaign offered the vaccine at places of easy access during expanded

The HCW vaccination campaign was conducted at the same time as the National Annual Influenza Vaccination Campaign, from April 24 to May 8, 2006. In the main building of the hospital, the vaccination was made available by mobile teams carrying coolers stocked with vaccine, a minimummaximum thermometer, ice packs, syringes, alcohol hand rub, alcohol wipes, adhesive bandages, disposal containers for needles, and documentation forms. At the change of shift, the mobile teams were located in the hall of each of the 2 main HCW entrances. The rest of the day, the mobile teams walked all the floors of the building visiting inpatient wards, the emergency department, laboratories, and the radiology department. In the other buildings of the complex, the vaccine was offered to the HCWs in places of easy access, but mobile vaccination was not implemented.

The nurses who worked in the campaign were given a 12-

hour theoretical and practical training course that addressed the composition of the vaccine, adverse events, contraindications, postvaccination advice, conservation of vaccine, the transportation and storage of vaccine at the required cold temperature, and administration of vaccine. The organization and training of the vaccination teams, as well as the campaign itself, were conducted by the hospital's employees. A supervisor and 3 mobile teams, each composed of 4 nurses, conducted the entire campaign in the main building. The vaccine remained available to the HCWs at the Immunization Center of the hospital until the end of the season.

In the entire hospital complex, 9,024 HCWs (45% of the target population) were vaccinated against influenza in 2006. The strategy was repeated in 2007, when the vaccine was administered to 9,713 HCWs (48.5%) during the 2-week campaign. The intervention in 2006 increased the HCW influenza vaccination rate from 6% to 45%. Both the institutional commitment to improve the rates and the involvement of employees were essential. Offering the vaccine to the HCWs in their work sites during their work hours by mobile teams, which made vaccination more convenient to the target population, was crucial to the success of the effort.

The results are consistent with those of other studies showing that increasing access to vaccination is the most effective strategy to overcome barriers and to increase HCW vaccination rates. 6,7 However, no single strategy is sufficient to vaccinate a high percentage of HCWs. 8

Ensuring the program's longevity and guaranteeing that a high percentage of HCWs get the vaccination every year is a challenge. A survey conducted at the Hospital das Clinicas in 2004 showed that 50%-70% of employees who had been vaccinated also received vaccination the following year, whereas more than 80% of those who had not been vaccinated remained unvaccinated.<sup>3</sup> To work in the long term, the educational campaign and vaccination program must be conducted annually to reach new employees and those who chose not to be vaccinated in the previous year.<sup>4</sup> Although the intervention increased the rate of vaccination among HCWs, we do not feel the achieved rate is good enough.

Nowadays, influenza vaccination is considered an HCW's personal choice. A shift in the focus of the immunization strategy, casting the influenza vaccination of HCWs as a means of improving safety for employees and patients, should be considered.<sup>1,8</sup> Beyond changing individual HCWs' attitudes, healthcare institutions should recognize that vaccination of HCWs is an important issue in infection control and healthcare quality.<sup>1,8</sup>

## ACKNOWLEDGMENTS

We thank all the staff of the "Grupo de Trabalho para diagnosticar e estabelecer estratégia de assistência no HC-FMUSP frente à eminência de epidemia de gripe aviária" for their hard work that ensured the success of the project. Potential conflicts of interest. All authors report no conflicts of interest relevant to this study.

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Infect Control Hosp Epidemiol 2008; 29:285-286

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# Clusters of Nosocomial Meningitis Associated With a Single Anesthesiologist

TO THE EDITOR—We read with great interest the recent article by Rubin et al. reporting 6 cases of meningitis after