

Improving influenza vaccination to health care workers

To the Editor:

Influenza vaccination of health care workers (HCW) is important for patient safety and general infection control. The Centers for Disease Control and Prevention (CDC) has recommended annual influenza vaccination for all HCWs.¹⁻³ Considering the fact that the highly contagious flu virus can be transmitted from infected HCWs to the patients in their care, it is important for hospitals to develop a comprehensive employee influenza campaign. In hospitals in which few HCWs consent to influenza vaccination, there is a greater challenge. The dismal screening and vaccination rates at North General Hospital prompted an overhaul of its employee influenza vaccination techniques. When employee education and roving clinics were implemented, influenza screening and vaccination rates increased considerably.

In 2006, the influenza screening and vaccination rates at North General were 15% and 9%, respectively. The employees within the institution did not feel confident with influenza vaccination, and many myths and misconceptions regarding the flu vaccine were an obstacle to vaccination. Following a guideline by the National Foundation for Infectious Diseases,⁴ a special focus was placed on making the flu vaccine more accessible and utilizing educational tools to dispel vaccination myths.

Education was provided during the vaccination campaign period through the distribution of posters and newsletters. During the campaign, biweekly education was provided with handouts, newsletters, or public announcements of flu vaccine distribution. Also, the use of declination statements during an influenza campaign can provide information on why workers are not being vaccinated that can be used in future campaigns. The top reasons why the staff was refusing flu vaccination at North General were that they would receive the vaccine from their primary care clinician, they usually do not get the flu, they did not want the vaccine, and they were afraid of a bad reaction.

Roving clinics bring the vaccine to the employee at their workstation. It is not enough these days to just

AREAS OF DISTRIBUTION

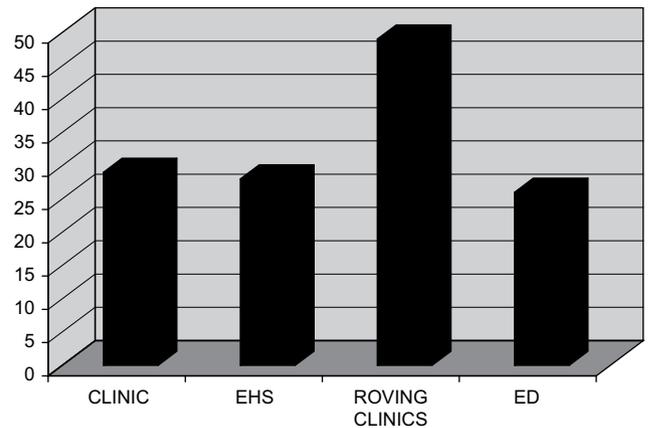


Fig 1. Areas of distribution.

have the vaccine available at Employee Health Services. Health care workers are busier these days, and it is often impossible for them to take breaks. By going to their work area, it is more convenient and gives opportunity for further education. It was shown in North General that when compared with other modes of vaccine delivery, mobile clinics yielded the highest number of employee response (Fig 1). The roving clinics were tailored to the various shifts that HCWs work. An increase in roving clinics in 2008 yielded an increase in screening and vaccination rates to 70% and 44%, respectively. Eighty-four percent of influenza vaccines were distributed at sites other than the Employee Health Services office.

Improving dismal vaccination rates among HCWs requires having a comprehensive influenza vaccine campaign that not only provides the vaccine but also provides educational support. Employee and occupational health clinicians must continue to provide education and demonstrate that the benefits of vaccination outweigh the risks. Implementing roving clinics for influenza vaccination can increase vaccination rates, if utilized correctly. Influenza campaigns can only continue to be effective if the HCW understands their role in the transmission of the flu virus and that influenza can be a deadly disease to the very young, immunocompromised, and elderly populations.

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0196-6553/\$36.00

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doi:10.1016/j.ajic.2008.12.005

Re: Prevalence of hospital-acquired infection in a Moroccan university hospital

To the Editor:

The comprehensive point-prevalence study at the Ibn Sina University Hospital in Rabat, Morocco,¹ to assess the existing hospital-acquired infection (HAI) was innovative. Such studies would be advantageous in other academic and nonacademic hospitals. Nevertheless, workups involving clinicians, clinical microbiologists, and epidemiologists and scrutiny of clinical and radiologic findings would not be feasible in nonacademic establishments. Chances of HAI surveillance would be low in private sector hospitals in developing countries. Alternatively, a culture-based surveillance for HAI ought to be a valid proxy. That was evident at the Sant Parmanand Hospital, Delhi, India, a private, 140-bed, multispecialty, tertiary care hospital.

Effective October 2002, all bacterial culture-positive hospitalized patients are being categorized as hospital- or community-acquired infection, depending on the time interval between time of admission and collection of pathologic specimens. Samples positive on culture after 2 to 3 days of hospitalization are labeled as "hospital acquired." An infection control team comprising clinicians, clinical microbiologist, and infection control/microbiology technicians would review such cases regularly. HAI cases are quantified monthly per 100 hospitalized cases. The team briefs management through the hospital director. The culture report including susceptibility profiles is communicated to the personnel responsible for patient care.

During the initial 6-month period October 2002 to March 2003, HAI patients averaged 0.98 per 100 admissions, SE 0.26. The annual averages \pm SE for the subsequent 12-month periods were 0.26 ± 0.07 , 0.4 ± 0.04 , 0.44 ± 0.04 , and 0.4 ± 0.04 , respectively. During 2005, there were 54 episodes of HAI recorded in 49 patients. The sites were urinary tract infections in 18 cases; pulmonary tissues in 16 cases, and blood and purulent

material in 10 cases each. Isolates included *Escherichia coli* strains, 16; *Klebsiella* species, 13; *Staphylococcus aureus*, 13; *Proteus* species, 7; *Pseudomonas* species, 3; and a solitary *Paracolon* species. As in Rabat,¹ local HAI infection was dominant in the urinary tract, and gram-negative bacteria and not gram-positive bacteria were the dominant offenders.

The average HAI incidence in the first 6 months of surveillance could be regarded as the basic scenario in the hospital. Culture-based surveillance would appear to lower the HAI in the subsequent 4-year interval: analysis of variance, $P < .0001$. Although hospital management was not approached for additional budget, motivated infection control team members ensured prompt communication of relevant data to clinicians. There has been no secondary spread of infection. A similar strategy of a motivated team of clinicians and microbiology personnel should effectively address HAI, even with rather inadequate fiscal support.

The authors thank Sarita Kumar for excellent secretarial assistance.

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doi:10.1016/j.ajic.2007.08.006

Outbreak of *Burkholderia cepacia* bacteremia in immunocompetent children caused by contaminated nebulized sulbutamol in Saudi Arabia

To the Editor:

From early spring 2003 through May 2004, hospitals across Saudi Arabia and the Gulf Cooperation Council States experienced outbreaks of *Burkholderia cepacia* nosocomial infections secondary to the use of contaminated multidose albuterol nebulization solutions that were manufactured and distributed in the Gulf Region. After an exhaustive investigation, the National Guard's Department of Infection Prevention and Control identified the cause of the outbreak, and triggered a regional recall of the contaminated product in April 2004 after