Creating a Successful Health Care Personnel Influenza Vaccination Program

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Abstract

Seasonal vaccination rates of health care personnel (HCP) remains low in spite of vigorous efforts to encourage immunization. Nosocomial outbreaks of influenza have occurred through introduction of the infection from HCP. Influenza vaccination rates of HCP during the H1N1 pandemic of 2009 and 2010 were as low as 34%. Our hospital experienced several cases of nosocomial influenza attributable to HCP during the H1N1 pandemic. Based on this experience we created a program for influenza immunization of HCP for the next influenza season and have enhanced it in succeeding years.

We initially reached out to children's hospitals nationally to assess their approach to vaccine coverage for HCP. We evaluated the recommendations for influenza vaccination from the CDC and AAP for each season. We determined vaccination rates of HCP for prior influenza seasons and Executive Leadership support for our plan was sought and given. Universal vaccination of HCP was identified as the strategy where protected zones were created around patients, families, visitors and HCP to prevent nosocomial transmission. Goals were to protect patients from nosocomial influenza and protect our co-workers and families from influenza. All messaging reflected these goals. HCP were rebadged indicating vaccine status. Unvaccinated HCP wore masks when in patient care areas. Management and Human Resources enforced the policy.

The primary outcome of no nosocomial cases of influenza attributable to HCP was achieved in the 2010-2011 season. We registered 100% of employees fulfilling state reporting requirements. In 2009-2010, 53% of HCP received the influenza vaccine. In 2010-2011, 97% of HCP were vaccinated. In the subsequent seasons we have maintained rates > 88%.

High rates of vaccination against influenza are possible in hospitals where the culture of safety is appropriate and with the proper motivation and messaging. Data management is critical and improvement in our processes allowed the effort to be maintained. Executive leadership is crucial for success.

Introduction

Nosocomial influenza infection (NII) is well documented (1) and is often associated with transmission from sub-clinically infected staff to vulnerable patients (2). Immunization of HCP against influenza is effective in reducing influenza among HCP (3). In spite of proven decrease in nosocomial influenza in patients, reduced absenteeism among hospital staff, and avoidance of costs generated by nosocomial infections and disruption of the work force, the vaccination rates among HCP remain low.

Vaccine coverage for HCP during the 2009-2010 and 2010-2011 seasons were 60.3% and 55.8% respectively. (4)

At CHLA , prior to the influenza A H1N1 pandemic the flu vaccine rates were lower than recommended by the ACIP. We had previously employed interventions to improve vaccine acceptance by staff including convenient times and locations, free vaccine, and education campaigns. During the pandemic season we experienced several cases of NII resulting in serious morbidity that were acquired from HCP . We determined to prevent NII in patients acquired from staff. We describe our approach and the results of our efforts in this report.

Methods

Definitions

Health Care Personnel (HCP): All Persons employed or affiliated with Children's Hospital Los Angeles, who either have direct contact with patients or who, if they were infected with Influenza , could potentially expose patients or others who have direct contact with patients.

Universal Vaccination (UV): A process by which protected zones are created and maintained around patients, families, visitors, and HCP in order to prevent nosocomial transmission of Influenza virus during the influenza season.

Goals:

1. **Protect our patients against nosocomial transmission of Influenza**
2. **Protect ourselves, co-workers and our own families against Influenza**

2010-2011 Season

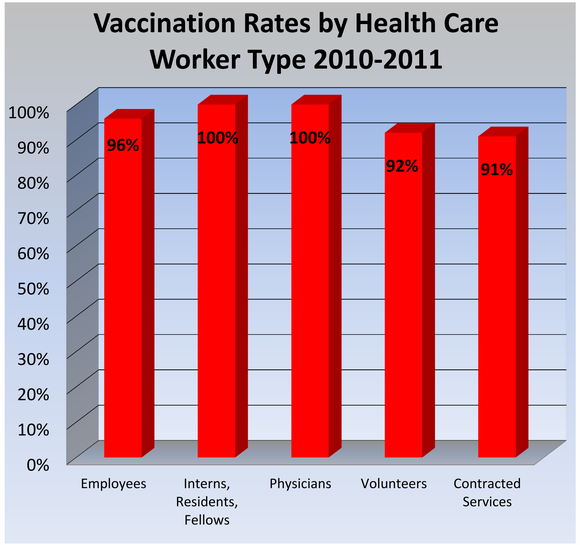
- Vaccination program strategies used by other hospitals were reviewed and definitions of universal vaccination and vaccine-eligible HCP were developed.
- Policies for HCP vaccination were revised and adopted.
- Medical, Nursing and Administrative leadership were involved and actively participated.
- Multidisciplinary collaboration established with Infection Prevention and Control, Human Resources, Marketing and Communications (M&C), Medical Staff, Nursing, Employee Health Services, and Information Technology.
- Program goals were carefully crafted in collaboration with M&C to develop a campaign and consistent messaging.
- Marketed as a campaign for patient safety, referring to the previous year's NIIs.
- A database of vaccine eligible HCP was created and free flu vaccine was offered from Oct 1st-Nov 30th 2010.
- Counseling by RNs or MDs was available during vaccine clinic visits.
- HCP who had medical a contraindication or declined were required to wear a mask when in contact with patients or family members.
- Unvaccinated HCP were required to re-badge with a green dot so they could be reminded to don a mask.
- Easy access to vaccine was enhanced and fast and efficient registration set up.
- Tracking of vaccination was by Excel spread sheets.
- Webpage dedicated to seasonal influenza with informational links was established.
- Focus groups by Infectious and Infection Prevention and Control (IPC) were held.

Subsequent Seasons

- Badge scanning replaced manual registration at the time of vaccination and information was aggregated by HR.

Results

- The annual staff influenza vaccination rate increased
  - 53% of CHLA staff had an annual influenza vaccine in 2010
  - 97% of CHLA staff had annual influenza vaccine in 2011
- There were no cases of nosocomial Flu acquired from HCP identified during the 2010-2011 season or subsequent seasons.
- 100% of CHLA staff were registered and we were able to meet state reporting requirements for proof of vaccination or declination



Subsequent Seasons	# HCP	Vaccinated	Declined	Unknown
2011-2012	5325	5137 (96.5%)	149 (2.8%)	39 (0.7%)
2012-2013	5119	4523 (88.4%)	195 (3%)	389 (7.6%)

Lessons Learned/Discussion

- Obtain support from Executive leadership early on in the development of the program
- Form an implementation task force comprised of leaders from many disciplines
- Data management is critical
  - Begin with a reliable system for tracking all staff (not just employees)
  - Vaccine tracking software requires comprehensive lists to properly track all staff
- Identify a method of tracking progress and alerting the management team
- Organizational culture may be crucial to success. CHLA has been recognized by Leap Frog and US News and World Report as a top performing children's hospital for several years. HCP acceptance of improvement strategies is common. Similar results may require culture change, more aggressive education or an administrative mandate in other institutions. (5)

References

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