



Service Priorities and Programmes Electronic Presentations

Convention ID: 433

Submitting author: Mr N M NG

Post title: Advanced Practice Nurse, United Christian Hospital, KEC

The effectiveness of seasonal influenza vaccination in reducing influenza-like illness related absenteeism among healthcare workers

Ng NM(1), Chan E(2), Ng TK(3), Choi KW(4), Wong TY(2)

(1)Infection Control Team, United Christian Hospital (2)Infectious Diseases Control Training Centre, Head Office, Hospital Authority / Infection Control Branch, Centre for Health Protection (3)Department of Medicine, Alice Ho Miu Ling Nethersole Hospital (4)Infection Control Team, Princess Margaret Hospital

Keywords:

seasonal influenza vaccination

healthcare workers

effectiveness

Introduction

Seasonal influenza vaccination has been demonstrated to be the most effective way to prevent influenza-related complications among patients with comorbidities. Healthcare workers (HCWs) are the recommended group to receive vaccination as they may become the vector for transmitting the influenza virus to patients. However, vaccine coverage among HCWs remained low. Doubtfulness on its effectiveness is one of the major reasons associated with the low vaccination rate.

Objectives

To evaluate the effectiveness of seasonal influenza vaccination in reducing influenza-like illness (ILI) related absenteeism among HCWs in an acute care hospital.

Methodology

A retrospective cohort study was conducted to all grades of full-time HCWs (categorized as medical; nursing; allied health; & clinical related supporting staff) worked in this hospital, from 31st January to 20th February 2011 (i.e. 3 weeks). This was the period that the influenza activities in Hong Kong reached the peak in 2010/11. The seasonal influenza vaccination data was retrieved from the Human Resources Department of this hospital, and the data of ILI related absenteeism was collected through the Staff Early Sickness Alert System (SESAS). Staff who reported absence through SESAS with fever higher than 38°C and one of the following symptoms (sore throat / runny nose / cough), would be defined as ILI related absenteeism. The effectiveness of seasonal influenza vaccine was determined by (i) the episodes of ILI related absenteeism; (ii) the mean differences (MD) on the ILI related absence days; between the vaccinated and non-vaccinated HCWs. Continuous data were analyzed using t test and categorical data were analyzed using χ^2 test at a significance level of 0.05.

Result

There was 3249 full-time HCWs worked in this hospital during the study period, 15.1% (n=492) of them received seasonal influenza vaccine. Although the episodes of ILI related absenteeism of vaccinated HCWs were similar to unvaccinated HCWs, the mean ILI related absence days were shorter in vaccinated HCWs (details as follow):

1. 1.51 days in all vaccinated HCWs; versus 1.94 days in non-vaccinated group (MD: -0.43 days; 95%C.I. -0.69, -0.15; p=0.002)
2. 1.58 days in vaccinated HCWs at age 40-49; versus 2.13 days in non-vaccinated group (MD: -0.55 days; 95%C.I. -1.0, -0.1; p=0.017)
3. 1.44 days in vaccinated nursing staff; versus 1.94 days in non-vaccinated group (MD: -0.5 days; 95%C.I. -0.9, -0.1; p=0.016)
4. 1.46 days among vaccinated clinical related supporting staff; versus 2.13 days in non-vaccinated group (MD: -0.67 days; 95%C.I. -1.1, -0.3; p=0.002)

Our findings suggested that seasonal influenza vaccination may shorten the duration of ILI related absenteeism among HCWs worked in the acute care setting during the influenza peak season.