

Valutazione di efficacia e impatto economico di una campagna di vaccinazione antinfluenzale in personale di una struttura sanitaria

MARIA TERESA CELLA, G. CORONA, ELVIRA TUCCILLO, G. FRANCO

Cattedra e Scuola di Specializzazione in Medicina del Lavoro, Università di Modena e Reggio Emilia - Struttura Complessa di Medicina del Lavoro, Servizio di Sorveglianza Sanitaria, Azienda Ospedaliero-Universitaria, Modena

KEY WORDS

Influenza vaccination; evidence based prevention; health care setting; benefit-cost ratio

SUMMARY

«Assessment of efficacy and economic impact of an influenza vaccination campaign in the personnel of a health care setting». Introduction: Although vaccination against influenza is a well-established practice among the elderly in rest homes, in community-dwelling elderly people and in persons with underlying medical conditions associated with a high risk of complications, vaccination of workers is not always considered cost-effective, even though influenza is high on the list of diseases of public health importance. The aim of this study was to evaluate the efficacy and the cost-benefit ratio of an influenza vaccination campaign in health care workers (HCW) of a teaching hospital. Methods: A group of 423 HCW vaccinated against influenza during the 2002-2003 winter season was compared with a group of subjects not vaccinated, matched for sex and working area. The following outcomes were considered: (i) prevalence of influenza-like illness (ILI); (ii) days of absence from work due to ILI. The cost-benefit ratio was calculated with a model using the following indices: indirect benefits (IB), indirect non medical costs (IC) and direct costs (DC). Results: The prevalence of ILI in the non vaccinated group (102 cases out of 423 subjects, 24%) was significantly increased ($p < 0,001$) compared with vaccinated subjects (64 cases out of 423, 15%). Working days lost for ILI were 516 in the non-vaccinated group versus 315 reported in the vaccinated group. Economic impact evaluation showed a cost of € 35.786,88 in vaccinees and of € 57.759,52 in the non-vaccinees. The resulting IB was € 21.078,64. The DC and IC for vaccination were € 2.463,29 and € 2.172,53 respectively. The overall cost-benefit ratio (IB/DC+IC) was 4,5. Discussion: The study shows that the influenza vaccination campaign was effective in preventing the influenza syndrome in HCW. The economic impact assessment shows a cost-saving with an important cost-benefit ratio. This study suggests that a continuous effort should be recommended to increase the compliance of HCW with vaccination practice both to reduce their chance of becoming infected and for the economic benefits for healthy working adults.