savings for the National Health Found budget in consequence of influenza vaccination in proposed population were 23,000 PLN.

CONCLUSION: Reimbursement of influenza vaccine (Influvac®) in children with malignancies in Poland would be cost saving for, at least, the National Health Found budget. Further analysis from social perspective, including direct non-medical and indirect costs, should be performed.

A WORKSITE INFLUENZA VACCINATION PROGRAM IN RUSSIA: A COST-BENEFIT ANALYSIS

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OBJECTIVES: Although most deaths from influenza occur among elderly people, all age groups are affected by influenza infections. This illness is responsible for significant epidemiological and economic burden to the working age population. Influenza vaccination has been demonstrated to reduce this impact, however few information concerns Eastern Europe countries. This study was designed to determine the effectiveness of influenza vaccination in healthy working adults in Russia and the economic benefits of such a program from an employer perspective.

METHODS: A prospective, non-randomized, non-placebo cost-benefit study was conducted involving two groups: vaccinated and non-vaccinated. A 9-month follow-up was done (October 2005–May 2006) using different questionnaires: one at inclusion to collect general employee information; another one, one week after vaccine injection to collect post-vaccination adverse events; and the last questionnaire was used monthly to collect Influenza Like Illness (ILI) events, duration of symptoms and sick leave associated. Effectiveness calculations and cost-benefit analyses were performed to evaluate the impact of influenza vaccination program in optimizing the productivity of employee and the return on investment for the employer.

RESULTS: In all, 1331 volunteers joined the study: 630 in the vaccinated group and 701 in the non-vaccinated group. The attack rate of ILI was lower among vaccinated (6.8%) than non-vaccinated subjects (23.2%). The effectiveness rates of influenza vaccine have reached 70.4% in reducing ILI occurrence and 80.8% in reducing sick leave days. 5.4€ per employee were invested for the vaccination. Assuming that employees working while experiencing ILI symptoms have a reduced level of productivity (30 to 70% of normal), the mean cost of disease avoided thanks to vaccination was between 7.5 and 10.8€. CONCLUSION: This study showed that ILI episodes had significant impact on work productivity. Influenza vaccination programs can decrease this impact and leads to cost-saving for the employer.

A decision-tree model based on O’Brian, B. et al, 2003 was built to simulate the course of the influenza infection. The number of workdays lost at Roche Brasil were derived from a retrospective analysis based on patient records and then compared with four different studies (Yoichiro et al. 2006, Rothberg, et al. 2005, Akazawa, et al. 2003 e Postma, et al. 2005). A one-year timeframe was used for the comparison. A total of 73 influenza cases were observed during the year of 2006 at Roche Brazil. Direct medical costs were obtained from the HMO responsible for Roche employees. Indirect costs related to absenteeism were based on a human capital approach considering the company expenses with personnel (salary + fringe benefits) as the workday value for each worker. Discounting was not included due to the short-term perspective of the analysis.

RESULTS: Total costs were R$ 20,198 for oseltamivir treatment group, and for the no antiviral treatment group total costs ranged from R$ 41,062 to R$ 55,261 depending on the study utilized. The cost-savings observed for oseltamivir were due to lower absenteeism costs (difference between the two groups ranged from R$ 26,842 to R$ 41,040) and its less frequent disease complications. Multi-way Sensitivity analyses confirmed the robustness of the results obtained. CONCLUSION: The analysis suggests that providing oseltamivir would incur in a substantial benefit for the employer. It worth to remind that the size of the benefit is also related to the company’s health care program (e.g. vaccination coverage).

COST-EFFECTIVENESS OF TIGECYCLINE IN THE TREATMENT OF COMPLICATED INTRA-ABDOMINAL INFECTIONS IN GERMANY

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OBJECTIVES: Increasing rates of resistance to antimicrobial therapy increase the risk of therapeutic failure and impose a challenge on therapy of infections. Thereby, resistant microorganisms lead to a significant increase in patient morbidity, mortality, and health care costs. Tigecycline, a glycycline, offers a broad-spectrum of activity including resistant pathogens such as methicillin-resistant Staphylococcus aureus (MRSA). In order to assess the cost-effectiveness of Tigecycline vs. selected standard antibiotics, we modeled its use in the treatment of complicated intra-abdominal infections (cIAI).

METHODS: A decision-analytic model was developed and adapted to estimate expected outcomes and costs of initial antibiotic therapy. Tigecycline therapy was compared with ceftriaxone/metronidazole, ciprofloxacin/metronidazole, imipenem/cilastatin and levofloxacin/metronidazole. We used published data on pathogen prevalence, in-vitro eradication rates, length of stay (LOS), failure rates and mortality in order to populate the model. Information on inpatient costs and drug costs were derived from official databases.

RESULTS: Overall success rate of initial tigecycline therapy was 89%. Ceftriaxone/metronidazole (71%), ciprofloxacin/metronidazole (70%), imipenem (82%), levofloxacin/metronidazol (76%) showed lower success rates. LOS was shortest with tigecycline therapy (13.8 d vs. 15.1, 15.1, 14.3, 14.7 respectively). Cost-effectiveness of tigecycline was better than for all comparators (6631.76€ vs. 8542.42€, 9200.67€, 7251.55€ and 7925.48€ per treatment success). Tigecycline therapy was dominant, e.g. it was more effective than all other regimens at lower total costs. CONCLUSION: The model indicates that empirical therapy with tigecycline is more cost-effective than standard antibiotic regimens.