COST-MINIMIZATION ANALYSIS OF VORICONAZOLE AND CASPOFUNGIN FOR THE TREATMENT OF INVASIVE CANDIDA AND ASPERGILLOSIS INFECTIONS IN SPAIN

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OBJECTIVES: There are no studies carried out to date comparing the cost of systemic fungal infection treatment with voriconazole and caspofungin. The aim of the study was to estimate the in-hospital cost of voriconazole versus caspofungin, plus oral continuation therapy (OCT), for the treatment of invasive Candida and Aspergillus infections in Spain. METHODS: A cost-minimization analysis model was performed from the hospital perspective in year 2004, as the same efficacy was assumed. Data on duration of treatment (intravenous + oral) and weight of patients were obtained from a local study: The Fungcost study. The incidence of drug-related adverse events was obtained from published clinical trials. Only direct cost for each episode were considered; medications (injectable and oral) at their hospital selling prices, the cost stemming from a drug-related adverse reactions treatment, and administration costs. Oral voriconazole was considered as the OCT for voriconazole arm, and oral fluconazol or itraconazol for caspofungin arm. Mean expected cost and incremental cost were calculated. Univariate and bivariate sensitivity analysis demonstrated peginterferon alfa-2a was the cost effective treatment strategy in 96% of the simulations. CONCLUSIONS: In the UK setting, peginterferon alfa-2a (40 KD)/ribavirin is cost-effective compared with conventional interferon alfa-2b/ribavirin for treatment of naive adults with CHC in genotype 1 patients and a cost-saving/dominant therapy in genotype 2/3 patients.

COST-BENEFIT ANALYSIS OF ANTI-INFLUENZA VACCINATION IN A PUBLIC HEALTH CARE UNIT

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OBJECTIVES: To estimate costs and benefits of a preventive anti-influenza vaccination in a group of employees of ULSS 17 (an public health care district), in order to define a scheme of cost-benefit analysis to be used for other strategies of vaccination and in other contexts. METHODS: In an observational study conducted from December 2002 to April 2003, 107 employees (about 5% of the whole staff of ULSS 17), who voluntarily underwent the vaccination, were compared with 107 non-vaccinated employees working in the same context and matched for age, gender and working category. The outcome was evaluated by checking records from the personnel department about absence from work and related causes, including influenza. Costs and benefits of the anti-influenza vaccination from the ULSS point of view were subsequently calculated. RESULTS: Among vaccinated people absences from work were 23% less than among non-vaccinated and working days lost were 30% less than non vaccinated employees. The ratio between the benefits of the vaccination strategy (less working days lost) and its cost was 4.2. The convenience emerges also through the sensitivity analysis, which took in consideration the mean cost of a working day for the enrolled employees, it showed that the cost-benefit ratio range from 4.5 to 11.7. CONCLUSIONS: The results of this study suggest that the implementation of the anti-influenza vaccination strategy in ours sample of working people was cost saving. The cost-benefit analysis used in this study could also be used for other vaccination strategy and in other contexts.

MODELLING THE COST-EFFECTIVENESS OF ACTIVATED PROTEIN C (XIGRIS®) TREATMENT OF SEPTIC PATIENTS IN INTENSIVE CARE UNITS IN HUNGARY

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OBJECTIVE: In our study we aimed to assess and compare the cost-effectiveness of sepsis treatment with and without Activated Protein C in Hungary for the year 2002. METHODS: To calculate the average efficiency of treatment of a septic patient in ICU in Hungary we constructed a model. This model was made up of three parts. In the first part, we defined a septic patient cohort based on the age and gender distribution of all the septic cases treated in ICU in Hungary in 2001. This patient cohort entered into the second part of the model where we developed a time dependent Markov model to describe and analyse the route of Hungarian septic cases through a 28-day-long period. We defined three Markovian states: survival in ICU, leaving ICU or the hospital alive, and death in or out of ICU. Transfer probabilities were defined for each of the 28 days on the basis of data collected for all septic events treated in ICUs in Hungary in 2001. In the Activated Protein C (Xigris®) treatment arm the transfer probabilities of the above-described model was modified on the basis of results of a clinical study. In the third phase, patients’ life-long survival was modelled based on the average age-specific life expectancy of the Hungarian. Survival of the septic patients was corrected by a factor of 0.51 taken from the international literature. Efficiency was calculated from societal viewpoint. RESULTS: Average cost-effectiveness of sepsis treatment was...