Abstracts

using data on the risk of pneumococcal disease, the serotype-adjusted vaccine efficacy, the vaccine price, decrease in the frequency of adverse outcomes and quality of life for patients with sequelae from pneumococcal disease. Due to uncertainty with respect to herd immunity, results are presented both with and without potential effects of herd immunity. 

RESULTS: Disregarding indirect costs, the incremental cost per QALY using 4 Prevenar doses was €96,000 when herd immunity was included and €140,000 when it was not (€57,000 and €83,000 if 3 doses offer the same effectiveness as 4). Also accounting for indirect costs, the numbers with 4 doses would be €37,000 and €56,000, respectively. With the most optimistic assumptions, vaccination would be cost saving. The vaccine price and efficacy, and otitis incidence were crucial factors in sensitivity analyses. Monte Carlo simulations indicate that the results were robust to uncertainty in other parameters. 

CONCLUSION: The cost-effectiveness of pneumococcal vaccination will in particular depend on the price of the vaccine, the efficacy of the vaccine, the efficacy of three versus four vaccine shots, and the extent of herd immunity. In Norway, €62,500 per QALY is the official cost-effectiveness threshold. Vaccination can therefore be considered cost-effective. In November 2005 the Norwegian Government included Prevenar in the public vaccination program.

PIN6

COST-EFFECTIVENESS OF VORICONAZOLE VERSUS AMPHOTERICIN B DEOXICOLATE FOR THE PRIMARY TREATMENT OF INVASIVE ASPERGILLOSIS

Aiello EC1, Devoto FM2, Dignani C3, De Vedia L4, Lorenzo H5

1Pfizer Argentina, Buenos Aires, Argentina, 2University of Buenos Aires, Buenos Aires, Argentina, 3Fundaleu, Buenos Aires, Argentina, 4Hospital Muñiz, Buenos Aires, Argentina, 5Pfizer Argentina, Buenos Aires, Argentina

OBJECTIVE: Invasive mycoses are associated with high mortality, therefore consuming important health care resources. Cost-effectiveness of voriconazole vs. amphotericin B deoxycholate (CAB) for the primary treatment of invasive aspergillosis (IA) was evaluated using data from a randomized comparative trial (Herbrecht, NEJM 2002), that showed the superiority of voriconazole in terms of clinical response, survival and safety when used as primary therapy for IA. 

METHODS: A model for analytical decision was designed based on the information provided by this clinical study. Changes in the antifungal treatment due to lack of response, as well as renal or hepatic toxicity with the initial treatment were assessed, considering direct medical costs only, reported in Argentine pesos. 

RESULTS: Average total treatment cost in the voriconazole arm was $44,040 vs. $45,428 in the CAB arm. Using the model assumptions (efficacy: 52.8% for voriconazole, 31.6% for CAB) voriconazole was the dominant treatment vs. CAB as primary therapy, with a cost per successfully treated patient of $83,444.96 vs. $143,858.26 respectively. One-way sensitivity analysis was performed in order to assess the impact of relevant key variables (cost of antifungals, cost of hospitalization, etc.) Even after changing these variables in a wide range, voriconazole was still cost-saving.

CONCLUSIONS: Incremental cost-effectiveness analysis indicated that voriconazole was the dominant therapy due to both lower costs and higher efficacy.

PIN7

COST-EFFECTIVENESS OF LINEZOLID VERSUS VANCOMYCIN IN THE TREATMENT OF NOSOCOMIAL PNEUMONIA IN ARGENTINA

Aiello EC1, Barcelona Li2, De Vedia L1, Stamboulian D1

1Pfizer Argentina, Buenos Aires, Argentina, 2FUNCHI, Buenos Aires, Argentina, 3Hospital Muñiz, Buenos Aires, Argentina

OBJECTIVES: Linezolid, the first available oxazolidinone, has shown efficacy in the treatment of methicillin-resistant Staphylococcus aureus (MRSA) infections, including nosocomial pneumonia. In patients with MRSA nosocomial pneumonia, survival rate was higher for those treated with linezolid than patients treated with vancomycin (80% versus 63.5%). Moreover, clinical cure rate was superior for linezolid (59% vs 35.5%) (Chest 2003;124:1789–97). We analyzed the economic impact of these clinical outcomes in an Argentinean setting using a decision-analytic model.

METHODS: A decision-analytic model was developed to estimate the costs and consequences of using linezolid versus vancomycin in hospitalized patients with nosocomial pneumonia in an Argentinean setting. Clinical and other parameters were taken from published trials. Three Argentinean infectologists provided data on resource utilization. For costing purposes (tests, hospitalization, adverse events and drugs) ALFABETA and IECs unit costs database were used (both are published). Outcomes consisted of total costs per patient, cost per death avoided, cost per life-year gained, and cost per cure.

RESULTS: According to the model results, an additional 14.3%