diabetic foot infection but our model had several limitations/assumptions; consequently, the results should be interpreted cautiously. More clinical studies to evaluate oral antibiotics effectiveness are needed.

ECONOMIC EVALUATION OF POSACONAZOLE VS. STANDARD AZOLE THERAPY IN THE PROPHYLAXIS AGAINST INVASIVE FUNGAL INFECTIONS IN PATIENTS WITH PROLONGED NEUTROPENIA IN CANADA

Tahami Monfaared AA, O’Sullivan AK, Papadopoulos G
1Schering-Plough Canada Inc, Kirkland, QC, Canada, 2Innovus, Medford, MA, USA, 3Schering-Plough Corp, Kenilworth, NJ, USA

OBJECTIVE: Posaconazole has been demonstrated to be significantly superior to standard azole therapy in preventing invasive fungal infections (IFIs) (P < 0.001) and in reducing overall mortality (P = 0.048) among patients with prolonged neutropenia. In this study, cost-effectiveness of posaconazole was evaluated from the Canadian health care system perspective. METHODS: A trial-based decision analytical model was developed. Patients were assumed to receive prophylaxis with posaconazole or standard azole therapy (fluconazole, 81%; itraconazole, 19%). The probabilities of experiencing an IFI, IFI-related death, and all-cause mortality over 100 days post treatment were estimated. To extrapolate results beyond the trial period, the model was extended to a lifetime horizon using 1-month Markov cycles in which mortality rate is specific to the underlying disease as estimated from Statistics Canada and Surveillance, Epidemiology, and End Result (SEER) data. Pharmacotherapy and treatment costs associated with IFIs were estimated using published literature. The model was used to estimate costs, IFIs avoided, life-years gained, and the incremental cost-effectiveness ratio (ICER) of posaconazole versus standard azole therapy (2007 Canadian dollars). RESULTS: Posaconazole is associated with significant fewer IFIs (0.05 vs. 0.11) (P = 0.003), increased life-years (0.744 vs. 0.728), and (excluding costs of the underlying condition) slightly lower costs ($7147 vs. $7332) per patient relative to standard azole therapy over a lifetime horizon. A second-order probabilistic Monte Carlo sensitivity analysis was conducted to assess the effects of parameter uncertainty, particularly as they relate to treatment efficacy and the costs of an IFI. Results indicate that there is a 53% probability that posaconazole is cost saving versus standard azole therapy and a 70% probability that the ICER for posaconazole is at or below the $50,000 per life-year saved threshold. CONCLUSION: In addition to the proven efficacy, posaconazole appeared to be cost saving relative to standard azole therapy in the prevention of IFIs among high-risk neutropenic patients.

COST-EFFECTIVENESS OF PEGINTERFERON-ALFA-2A (40 KD) ASSOCIATED WITH RIBAVIRIN IN THE TREATMENT OF PATIENTS WITH CHRONIC HEPATITIS C IN BRAZIL UNDER THE PRIVATE HEALTH CARE SYSTEM

Parana R1, Sette H1, Pessoa M1, Crespo D1, Barros F1, Santos EA1, Saggio MG2, Tatsch F1, Simes R5
1Universidade Federal da Bahia, Salvador, BA, Brazil, 2Universidade de São Paulo, Sao Paulo, SP, Brazil, 3Instituto de Infectologia Emílio Ribas, Sao Paulo, SP, Brazil, 4Universidade Federal do Para, Belém, PA, Brazil, 5Universidade Federal de Pernambuco, Recife, PE, Brazil, 6Roche Brazil, Sao Paulo, SP, Brazil

OBJECTIVE: Hepatitis C is a disease affecting approximately 180 million people worldwide (WHO 2006) and is one of the main causes of chronic hepatic disease. HCV infection progresses to chronic form in 80% of infected individuals. Approximately 20% progress to cirrhosis over 20 years and, consequently, a high risk of developing hepatocellular carcinoma population. We assessed the incremental cost-effectiveness ratio (ICER) of peginterferon alfa-2a (40 KD) plus ribavirin (PEG + RBV) versus interferon alfa-2b plus ribavirin (IFN + RBV) in the treatment of patients with chronic hepatitis C under the Brazilian payer perspective. METHODS: A Markov model was built to estimate the clinical and economic impact related to the incorporation of peginterferon-alfa-2a (40 KD). Clinical stages were based on liver histology, forms of cirrhotic decompensation, liver cancer and liver transplantation. A Delphi panel was performed for evaluating the direct medical resources related to each clinical stage in chronic hepatitis C, as well as costs from treatment with peginterferon-alfa-2a (40 KD), interferon alfa-2b and ribavirin. Effectiveness of treatment with peginterferon-alfa-2a (40 KD) was obtained from a multicenter, controlled, randomized trial involving 1121 naive patients with chronic hepatitis C (Fried et al, 2002). The model comprises a life-time horizon. We have assumed a discount rate of 3% for both costs and outcomes according to international recommendations (Gold et al, 1996). A sensitivity analysis was conducted using second-order Monte Carlo simulation. Tested parameters were costs per stage, treatment costs, discount rate, response rate to treatment, inflation rate and early patient distribution. RESULTS: The ICER of PEG + RBV versus no treatment was approximately R$62,521 per quality-adjusted life year (QALY) gained. The ICER of PEG + RBV versus IFN + RBV was approximately R$20,087 per QALY. CONCLUSION: The study suggests peginterferon alfa-2a (40 KD) and ribavirin to be a dominant therapy for treating hepatitis C in the private health care system in Brazil.