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.

PIN13

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

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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.

PIN14

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

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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.

PIN15

ECONOMIC EVALUATION OF TIPRANAVIR IN THE TREATMENT OF HUMAN IMMUNODEFICIENCY VIRUS

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OBJECTIVE: Tipranavir plus ritonavir (TPV/r) and an optimized background (OB) antiretroviral regimen delays virologic failure, reduces viral load and increases CD4 count compared to patients treated with comparator protease inhibitors, co-administered with ritonavir (CPI/r) and OB alone. The objective was to investigate the long-term cost, outcomes and cost-effectiveness of TPV/r + OB compared to CPI/r + OB in the Canadian health care system. **METHODS:** A Markov model was developed and populated with information on 48-week viral load and CD4 cell count response from two randomized controlled trials (RESIST 1 and RESIST 2) and HAART-era published literature. Resource use and cost data was obtained from a Canadian study and published sources. Future costs and outcomes were discounted at 5%. The analysis calculated costs and outcomes from time of starting these regimens, until 90% of patients in each strategy had died (lifetime analysis). Cost-effectiveness was calculated as cost per life year (LY) gained and cost per quality-adjusted life year (QALY) gained. **RESULTS:** Total discounted lifetime costs for TPV/r + OB was $221,541 compared to $194,466 with CPI + OB. discounted life expectancy and QALYs were greater for TPV/r + OB compared to CPI/r + OB by 0.530 yrs and 0.516 QALYs, respectively. Incremental cost-effectiveness of TPR/r + OB was $51,058 per LY gained and $52,517 per QALY gained. Sensitivity analysis showed results were robust. **CONCLUSION:** TPV/r + OB provides superior clinical improvement to a population of highly treated HIV patients with limited treatment options. TPV/r + OB is predicted to improve life