PIN56
MICAFUNGIN VERSUS CASPOFUNGIN FOR THE TREATMENT OF SYSTEMIC CANDIDA INFECTIONS: A COST-EFFECTIVENESS ANALYSIS FOR SWITZERLAND
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OBJECTIVES: Comparing the cost-effectiveness of Micafungin and Caspofungin for the treatment of systemic candida infections (including invasive candidiasis and candidaemia) in Switzerland. **METHODS:** To this end, a health economic decision model, based on a phase-III double-blind RCT with global patient data is used. Hospitalization and primary medication costs are based on official Swiss data. The effectiveness outcome is defined as successfully treated and alive patients at the end of the study period. To test for robustness of cost-effectiveness results, a subgroup analysis, a two-way sensitivity analysis and a probabilistic sensitivity analysis (PSA) are performed. **RESULTS:** The main analysis shows that 60 % of Micafungin patients were successfully treated and survived at the end of study compared to 58 % of Caspofungin patients. The costs of a Micafungin treatment (CHF 54,503) are smaller than the costs of a Caspofungin treatment (CHF 56,704). This results in a lower cost-effectiveness ratio for Micafungin (CHF 91,356) than for Caspofungin (CHF 98,900). Moreover, Micafungin dominates Caspofungin in the incremental cost-effectiveness analysis. For European patients only, who can be assumed to be a more homogenous group and a better approximation of Swiss patients, the cost-effectiveness ratio for Micafungin is CHF 88,474 compared to CHF 105,202 for Caspofungin. Two-way sensitivity analyses for both, total sample and European sub-sample, render Micafungin more cost-effective than Caspofungin in 20 out of 20 scenarios (highest incremental cost-effectiveness for Micafungin amounts to CHF 16,382). Probabilistic sensitivity analysis shows similar findings. **CONCLUSIONS:** This study analyzes the cost-effectiveness of Micafungin as compared to Caspofungin for the treatment of systemic candida infections in Switzerland. Both lower costs and higher effectiveness of Micafungin render Micafungin as more cost-effective than Caspofungin.

PIN57
THE HEALTH AND ECONOMIC IMPACT OF VACCINATION WITH 7-VALENT PNEUMOCOCCAL VACCINE (PCV7) DURING AN ANNUAL INFLUENZA EPIDEMIC AND INFLUENZA PANDEMIC IN CHINA
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OBJECTIVES: China has experienced several severe outbreaks of influenza over the past century: 1918, 1957, 1968, and 2009. Influenza itself can be deadly; however, the increase in mortality during an influenza outbreak is also attributable to secondary bacterial infections, specifically pneumococcal disease. Given the history of pandemic outbreaks and the associated morbidity and mortality, we investigate the cost-effectiveness of a PCV7 vaccination program in China from the context of typical and pandemic influenza seasons. **METHODS:** A decision-analytic model was employed to evaluate the impact of a 7-valent pneumococcal vaccine (PCV7) infant vaccination program on the incidence, mortality, and cost associated with pneumococcal disease during a typical influenza season and influenza pandemic in China. Estimates were performed comparing an 85% level of PCV7 coverage among all newborn infants during a single year in China relative to a case where no PCV7 vaccinations occur for both a typical influenza season and a severe influenza pandemic in China. The model incorporates Chinese data where available and includes both direct and indirect (herd) effects on the unvaccinated population, assuming steady state. Costs were calculated using a payer perspective and included vaccination program costs and direct medical expenditures from pneumococcal disease. **RESULTS:** The model predicts that PCV7 vaccination in China would prevent 4,855,878 cases of pneumococcal disease and 66,351 deaths in a single year during a normal influenza season. The estimated incremental-cost-effectiveness ratios were ¥24,383 per life-year saved and ¥25,519 per quality-adjusted-life-year gained. During an influenza pandemic, the model estimates that vaccination with PCV7 would prevent 8,192,158 cases of pneumococcal disease and 659,216 deaths, and would be cost-saving. **CONCLUSIONS:** Vaccination with PCV7 in China is cost-effective during typical influenza season. During an influenza pandemic, the benefit of PCV7 in preventing excess pneumococcal morbidity and mortality renders a PCV7 vaccination program cost-saving.

PIN58
ECONOMICS ANALYSIS OF DIAGNOSTIC METHODS FOR CLOSTRIDIUM DIFFICILE INFECTION
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OBJECTIVES: Several molecular diagnostic assays (MDA) are now commercially available for the diagnosis of *Clostridium difficile* infection (CDI). These assays detect genomic material associated with the pathogen's toxin A, B and/or other genes in stool samples. Compared with the traditional CDI laboratory assay diagnostics, MDA has a shorter turn-around time and better sensitivity, but requires relatively expensive instrumentation. The impact of routine use of MDA on the economics of CDI disease (via shorter hospitalization and less morbidity) is not clear. We evaluated whether routine use of MDA reduces the health care costs and improves quality-adjusted life years (QALYs) for CDI patients. **METHODS:** We performed a decision tree analysis to compare cost effectiveness of MBD with enzyme immunoassay (EIA) and cytotoxin assay (CA) respectively, using data from published literature and experts' opinions. Analyses were conducted from the societal perspective. Both incremental cost-effectiveness ratio (ICER) and net monetary benefit (NMB) were used as criteria for evaluation. **RESULTS:** The ICER shows that MDA is dominant to the other two alternatives. Using a base willingness-to-pay per QALY threshold ($150,000), the NMB of MDA vs. EIA and CA are around $4,000 and $1,500, respectively. Thus, conclusions from ICER and MDA assessments are consistent. To investigate the model robustness, we performed one-way and probabilistic sensitivity analyses. All sensitivity analyses illustrated that MDA dominated EIA and CA within the predefined ranges of input variables. **CONCLUSIONS:** Our study demonstrated that the routine use of MDA for CDI patients would result in substantial savings and improved health outcomes in US patients, compared to traditional diagnostic assays for this infection. These are the first data to evaluated QALY outcomes as they may vary with diagnostic test choice for CDI.

PIN59
COST-EFFECTIVENESS OF BECAPLERMIN GEL ON WOUND CLOSURE IN THE TREATMENT OF PRESSURE ULCERS
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OBJECTIVES: Determine the cost-effectiveness of becaplermin gel* on wound healing for the treatment of pressure ulcers (PU). **METHODS:** A 2-stage Markov model was used to predict expected costs and outcomes of wound healing for becaplermin gel once daily compared to placebo gel over a 1-year time period. Outcome data used in the analysis were derived from a 16-week randomized clinical trial. Primary outcome of interest was ulcer-free weeks. A total of 61 patients completed the study; 31 for becaplermin gel once-daily, and 30 for placebo gel. Patients in both arms received dressing changes twice daily. Patients in the treatment arm received becaplermin gel once daily followed by placebo gel. Transition probabilities for the Markov states were estimated from the clinical trial. Ulcer recurrence rates were derived from PU literature. Utilization for becaplermin gel was calculated using the manufacturer's recommended dosing algorithm for diabetic foot ulcers. Costs were derived from standard cost references and medical supply wholesalers. The economic perspective taken was that of the payer. **RESULTS:** Wound closure for patients treated with becaplermin gel was significantly ($p<0.01$) higher compared to placebo gel (23% versus 0%, respectively) at 16 weeks. Over 1-year, patients treated with becaplermin gel had substantially higher ulcer-free weeks compared to placebo patients (13.5 versus 0.0, respectively). Patients treated with becaplermin gel incurred higher total costs than those receiving placebo. Expected annual direct costs for PU were $3,234 for becaplermin gel and $1,222 for placebo. The incremental cost-effectiveness ratio (ICER) was $149 (approximately $21/day), indicating that patients would have to pay an extra $149 to gain one additional ulcer-free week. **CONCLUSIONS:** Becaplermin gel was cost-effective over placebo, yielding better outcomes at a slightly higher cost. In addition, becaplermin gel is an effective treatment for wound healing and should be considered for use in the management of pressure ulcers. *Regranex®, Smith & Nephew Biotherapeutics, Fort Worth, Texas

PIN60
COST EFFECTIVENESS OF COLISTIMETHATE SODIUM FOR THERAPY OF INFECTIONS CAUSED BY MULTIDRUG-RESISTANT (MDR) IN MEXICO
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OBJECTIVES: To determine the cost effectiveness of colistimethate sodium for the treatment of infections caused by multidrug-resistant (MDR). **METHODS:** We compare key outcomes related to survival, infection averted and costs for infections caused by MDR. A lifetime Markov model was used to estimate the expected outcomes and costs for patients treated with colistimethate sodium vs non- colistimethate sodium group. Colistimethate sodium at a dosage of 5mg/kg/day was given intravenously in two divided doses. Primary outcomes were the clinical response and 30-day mortality; secondary outcomes were microbiological response and adverse events. The cost-effective analysis was conducted from the Mexican Health care perspective. Costs were derived from the literature, future costs and effects were discounted at 5% per recommendations for analyses in Mexico. All costs are presented in 2013 US dollars. Multiple 1-way and Probabilistic sensitivity analyses were performed. **RESULTS:** In the colistimethate sodium group, 80.8% had a favorable clinical response, the overall mortality of the patients in the colistimethate sodium group was 46.2% and that in the non- colistimethate sodium group was 80%. Nephrotoxicity was found in 30.8% in the colistimethate sodium group. The model projects an accumulated discounted cost to the Mexican health care system per patient receiving the Colistimethate sodium regimen of $8,525 compared to $7,384 for non- colistimethate sodium regimen. The base-case analysis presented incremental cost-effectiveness ratios for colistimethate sodium vs non- colistimethate sodium grup of $ 2,213 per LYG. These values are in accordance with the recommendations of the Commission on Macroeconomics and Health, WHO, suggesting that health technologies with ICERs below the per capita GDP are considered very cost-effective. Results were robust to various assumptions tested in the sensitivity analysis. **CONCLUSIONS:** This study suggest that in the Mexican setting, use of non- colistimethate sodium for treatment of infections caused by MDR is likely to be cost effective.

PIN61
COST-EFFECTIVENESS ANALYSIS OF MICAFUNGIN VERSUS CASPOFUNGIN IN THE TREATMENT OF INVASIVE CANDIDA INFECTION IN CHINA
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OBJECTIVES: To evaluate the cost-effectiveness of micafungin compared to caspofungin in the treatment of invasive Candida infection in China. **METHODS:** A decision-tree model was developed to estimate the cost-effectiveness of micafungin and caspofungin from the perspective of the whole society. In the model, outcome on effectiveness was derived from an international, randomized, double-blind, phase III clinic trial and cost data was based on China's practical situation. In the sensitivity analysis we use relative measurement method and absolute measurement method to analyze the results. **RESULTS:** At the end of all antifungal therapy, the treatment success rate of micafungin 100 mg/d group, micafungin 150 mg/d group and