the analysis. The model’s effectiveness outcome is defined as patients who are successfully treated and are alive. Cost-effectiveness is measured as total costs per patient with respect to effectiveness for each medication arm. In addition, sensitivity analyses were performed to identify cost-effectiveness for different clinical and economic assumptions. RESULTS: The analysis showed that 70% of MICA patients were successfully treated and survived at the end of study compared to 58% of CASPO patients. Furthermore, the costs of a MICA treatment ($37,212) are below the costs of a CASPO treatment ($37,720). Therefore, the cost-effectiveness ratio is lower for MICA ($62,377) than for CASPO ($65,565). This result also holds for all but one of the sensitivity analyses. However, probabilistic sensitivity and subgroup analyses show that differences cannot be considered statistically significant due to large variance. For European patients only, who can be assumed to be a more homogenous group and a better comparator, results show a complete cost-effectiveness for German patients, cost/savings ratio for MICA of $59,406/€ compared to $68,217 for CASPO, the difference being statistically significant. CONCLUSIONS: This study analyzes the cost-effectiveness of MICA as compared to CASPO for the treatment of systemic candida infections in Germany. Both lower costs and higher effectiveness of MICA render MICA as more cost-effective than CASPO.


COST-EFFECTIVENESS STUDY OF THE USE OF DAPTOMYCIN VERSUS VANCOMYCIN: A NON-INFECTION DEPENDENT COST-EFFECTIVENESS BACTERIUM TREATMENT IN PUBLIC HEALTH INSTITUTIONS IN MEXICO

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OBJECTIVES: To establish a cost-effective intravenous antibiotic therapy in the treatment of Infective Endocarditis and Bacterium. METHODS: A cost-effectiveness study was performed, estimating the expenses and use of resources of Mexican Public Health Institutions. The study was based on a decision tree with Bayesian approach defining three different health states: clinical success (within short or long hospital stay frame), therapeutic failure, and death. The comparisons were made between (i) IV Vancomycin (VAN) as a first-line antibiotic therapy followed by a second-line antibiotic therapy in therapeutic failure, or b) i.v. Daptomycin (DAP) as a first-line or second-line anti- bacterial therapy. The most recent published data concerning efficacies, length of hospital stay and adverse events were included in the study. Results were evaluated with incremental analysis and one-way sensitivity analysis of the uncertain variables. RESULTS: The use of i.v. Vancomycin in first-line antibiotic therapy represents savings of US$4,619.00 per patient reaching clinical success (CS) compared to the use of i.v. Vancomycin as first-line antibiotic therapy (DAP-VAN: US$211,168.00/CS; VAN-2nd line antibiotic: US$25,787.00/CS). A greater proportion of patients are more likely to attain clinical success when DAP is used as first-line antibiotic therapy (DAP- VAN: 62%; VAN-2nd line antibiotic: 54%) due to a less frequent development of adverse events compared to the use of VAN. The sensitivity analysis varying clinical success rates of every evaluated alternative demonstrated the robustness of the base study. CONCLUSIONS: Daptomycin is the most cost-effective alternative in the treatment of Infective Endocarditis and Bacterium when used as first-line antibiotic therapy since it decreases hospital expenses due to a reduced hospital stay and results in a greater proportion of patients reaching clinical success. The use of Vancomycin in long term treatments is associated with a higher frequency of adverse events which can cause treatment interruption resulting in therapeutic failure.

PINS1

COST-EFFECTIVENESS STUDY OF THE USE OF DAPTOMYCIN VERSUS VANCOMYCIN: A NON-INFECTION DEPENDENT COST-EFFECTIVENESS BACTERIUM TREATMENT IN PUBLIC HEALTH INSTITUTIONS IN MEXICO

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PINS2

COST ESTIMATES IN THE ECONOMIC EVALUATIONS OF VACCINATION PROGRAMMES: THE CASES OF ROTAVIRUS AND VARICELLA IN BRAZIL

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OBJECTIVES: To estimate the impact of the use of more detailed direct medical costs for the economic evaluations (EEs) of universal vaccinations against rotaviruses and varicella in Brazil on the incremental cost-effectiveness ratios (ICERs). METHODS: Previous published EEs were used as basis and new direct medical costs estimates for rotavirus and varicella were developed, with the inclusion of specific costs of the private health care system (HCS) for the two diseases, inclusion of public participation for dispensing drugs in the case of rotavirus and inclusion of drugs costs in the public HCS in the case of varicella. Cost estimate methods consisted of gross-costing and micro-costing. Data were obtained from national regulatory agency database (ANS), house- hold survey (PNAD), private (CHBHPM, TUNEP) and public (Ministry of Health) reference lists. Direct medical costs were then applied to the previous models, preserving non-medical direct and indirect costs, all costs in 2004 Reals. ICERs were recalculated and compared to the original calculations, from the HCS and societal perspective. Univariate sensitivity analysis was performed to each cost item and discount rate to analyse individual impact on ICER. RESULTS: From the societal perspective, there was an estimated that total cost increase of 16% for rotaviruses and 11% for varicella as well as an increase of savings with the vaccination of 18% and 16%, respectively. ICERs were reduced by 20% for rotavirus (to €92/LSY) and 4% for varicella (to €499/LSY), still below the threshold (3xGDP per capita). Sensitivity analysis indicated that A vaccine against rotavirus and varicella were more sensitive to the vacci- nation program cost estimates, especially the vaccine price. CONCLUSIONS: Although the more detailed cost estimates reduced the ICERs, the level of cost-effectiveness of the two vaccination programs remained the same. Sensitivity analysis pointed out the relevance of the vaccine cost comparatively to the direct medical costs.