OBJECTIVES: To evaluate the clinical-economic value of caspofungin therapy vs. standard and alternative treatments in patients with invasive candidiasis (IC) hospitalized in intensive care units (ICU). METHODS: The pharmacoeconomic analysis utilized the cost-effectiveness analysis (CEA). If the efficacy and the cost of any of the studied regimens exceeded those of the other regimen, an incremental analysis was carried out (ICERs). A list of direct costs was compiled: clinical laboratory procedures carried out at invasive candidiasis diagnosis; antifungal costs in the treatment of invasive candidiasis; antifungal administration costs; costs of the diagnosis of adverse events following administration of an antifungal. Efficacy and safety data were based on additional analyses of a randomised, double-blind, multinational trial of antifungal. To evaluate the degree of accuracy of the results, sensitivity analyses were performed. RESULTS: It was established that the mode of starting treatment of IC amphotericin B and then caspofungin was both more effective and less expensive in comparison with the use of amphotericin B and then an alternative antifungal. When we used caspofungin or amphotericin B lipid complex shares of expenses on antifungals were 80–85%. Lower parameters are achieved at application amphotericin B and fluconazole, 46% and 66%, accordingly. The analysis of the alternative, whose efficiency of treatment of IC was equal in all groups, has shown, that the least expensive strategy was that where the starting treatment was amphotericin B. The disadvantage of the analysis of antifungal therapy of IC, most expedient strategy is that starting the application of caspofungin.

COST MINIMIZATION ANALYSIS OF THREE Candida IDENTIFICATION TESTS WITH PREDICTION MODELS BASED ON REAL-WORLD DATA

METHODS: A computer simulation model was developed to predict costs and health outcomes for a pH1N1 vaccination program using inactivated vaccine compared to no vaccine. The modeled target population included hypothetical cohorts of persons aged 6 months and older stratified by age and risk. Probabilities, costs and quality-adjusted life years (QALYs) were derived from published clinical trials. We estimated local direct costs from a payer perspective using 2009 official rates for drugs and lab tests, and real costs for AIDS-related complications (exchange rate Co$1968 per US$, January 2010). Utilities (in QALYs) were obtained from the Tufts CEa registry. Efficacy was measured as a first virological failure, new-onset "rescue therapy", AIDS-related complications, and deaths per 1000 patients (estimated through Monte Carlo probabilistic simulation). We applied a 5 percentage discount rate costs and QALYs. RESULTS: Average cost per patient was US$ 39,334 for DRV/r, US$ 41,825 for LPV/r and US$ 49,135 for ATZ/r. Five-year mortality was 5.9% in the DRV/r group, 7.6% for LPV/r and 8.0% for ATZ/r; there were 235 AIDS-related complications in the DRV/r group, 273 in the LPV/r group and 198 in the ATZ/r group, while 49,135 for ATZ/r. Five-year mortality was 5.9% in the DRV/r group, 7.6% for LPV/r and 8.0% for ATZ/r. Average QALYs gained in the five-year period were: DRV/r 3.92; LPV/r 3.81 and ATZ/r 3.84. Cost-utility and cost-effectiveness analysis show darunavir as the dominant alternative since the first year compared to atazanavir, and since the fourth year compared to lopinavir. One way sensitivity analyses did not modify the results significantly. CONCLUSIONS: In Colombia, initial treatment with darunavir in patients with a first virological failure therapy is less costly than with lopinavir or atazanavir and is significantly more effective.

COST-EFFECTIVENESS OF 2009 PANDEMIC INFLUENZA A(H1N1) VACCINATION IN THE UNITED STATES

METHODS: A computer simulation model was developed to predict costs and health outcomes for a pH1N1 vaccination program using inactivated vaccine compared to no vaccine. The modeled target population included hypothetical cohorts of persons aged 6 months and older stratified by age and risk. Probabilities, costs and quality-adjusted life years (QALYs) were derived from published clinical trials. We estimated local direct costs from a payer perspective using 2009 official rates for drugs and lab tests, and real costs for AIDS-related complications (exchange rate Co$1968 per US$, January 2010). Utilities (in QALYs) were obtained from the Tufts CEa registry. Efficacy was measured as a first virological failure, new-onset "rescue therapy", AIDS-related complications, and deaths per 1000 patients (estimated through Monte Carlo probabilistic simulation). We applied a 5 percentage discount rate costs and QALYs. RESULTS: Average cost per patient was US$ 39,334 for DRV/r, US$ 41,825 for LPV/r and US$ 49,135 for ATZ/r. Five-year mortality was 5.9% in the DRV/r group, 7.6% for LPV/r and 8.0% for ATZ/r; there were 235 AIDS-related complications in the DRV/r group, 273 in the LPV/r group and 198 in the ATZ/r group, while 49,135 for ATZ/r. Five-year mortality was 5.9% in the DRV/r group, 7.6% for LPV/r and 8.0% for ATZ/r. Average QALYs gained in the five-year period were: DRV/r 3.92; LPV/r 3.81 and ATZ/r 3.84. Cost-utility and cost-effectiveness analysis show darunavir as the dominant alternative since the first year compared to atazanavir, and since the fourth year compared to lopinavir. One way sensitivity analyses did not modify the results significantly. CONCLUSIONS: In Colombia, initial treatment with darunavir in patients with a first virological failure therapy is less costly than with lopinavir or atazanavir and is significantly more effective.

COST-EFFECTIVENESS OF THREE ANTIRETROVIRAL SCHEMES AFTER A FIRST VIROLOGICAL FAILURE IN PATIENTS WITH HIV/AIDS IN COLOMBIA

OBJECTIVES: To assess the cost-effectiveness and the cost-efficiency of three treatment schemes (based on lopinavir [LPV/r], darunavir [DRV/r] and atazanavir [ATZ/r]) used in patients with HIV/AIDS after a first virological failure, in Colombia. METHODS: We designed a Markov model with 10 six-month cycles (5-year timeframe) based on efficacy measures obtained from published clinical trials. We estimated local direct costs from a payer perspective using 2009 official rates for drugs and lab tests, and real costs for AIDS-related complications (exchange rate Co$1968 per US$, January 2010). Utilities (in QALYs) were obtained from the Tufts CEa registry. Efficacy was measured as a first virological failure, new-onset “rescue therapy”, AIDS-related complications, and deaths per 1000 patients (estimated through Monte Carlo probabilistic simulation). We applied a 5 percentage discount rate costs and QALYs. RESULTS: Average cost per patient was US$ 39,334 for DRV/r, US$ 41,825 for LPV/r and US$ 49,135 for ATZ/r. Five-year mortality was 5.9% in the DRV/r group, 7.6% for LPV/r and 8.0% for ATZ/r. Average QALYs gained in the five-year period were: DRV/r 3.92; LPV/r 3.81 and ATZ/r 3.84. Cost-utility and cost-effectiveness analysis show darunavir as the dominant alternative since the first year compared to atazanavir, and since the fourth year compared to lopinavir. One way sensitivity analyses did not modify the results significantly. CONCLUSIONS: In Colombia, initial treatment with darunavir in patients with a first virological failure therapy is less costly than with lopinavir or atazanavir and is significantly more effective.