length of stay in the hospital is about 3.5 days. CONCLUSIONS: After the logistic and linear regressions, the results showed a small correlation with cellutins. The likelihood of having a bacterial infection or having infections with microorganisms increases with cellutins. The likelihood of having a venous catheterization, having the skin drained, or having the tendon sheath of the hand explored increases with cellutins.

INFECTION – Cost Studies

THE ECONOMIC IMPACT OF TRANSITIONING VALACYLOVIR TO OVER THE COUNTER STATUS FOR THE TREATMENT OF GENITAL HERPES

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OBJECTIVES: The herpes virus afflicts more than 45 million individuals in the United States with an estimated 460,000 physician office visits each year for primary infections. With no cure for the herpes infection, it can be transmitted from the infected individuals to the unsuspecting population through the lifetime of the infected. With the approaching patent expiration for the prescription drug valacylovir (Valtrex®) in 2009, this study examines the implications of transitioning valacylovir to over the counter (OTC) status. METHODS: A decision analysis model was used to examine the current prescription based requirement for valacylovir compared to the OTC status for the product. The analysis was constructed from a societal perspective and used a Markov model. A simulation model conducted in a hypothetical cohort of 10,000 individuals with primary genital herpess in the United States with direct medical cost as the principal outcome. Cost estimates are based on literature review and national health care databases. A sensitivity analysis through a Monte Carlo simulation assesses the validity of the cost estimates. RESULTS: The transition of valacylovir to OTC status will amount to an average annual savings of $705,000 ($544,000 to $868,000) per newly infected individual in the form of direct medical expenditures. The annual average cost for the OTC transition is $108 per newly infected, compared to the annual average cost of the prescription based requirement of $115 per newly infected. Aggregate annual savings to the United States from newly infected individuals is $282 million per year. CONCLUSIONS: Transitioning valacylovir to OTC status is a cost saving measure for society, largely due to the decrease in physician office visits for valacylovir prescriptions. Further studies will need to address specific population needs in regards to herpes education, feasibility of self-diagnosis, viral resistance and indirect cost.

INCREASING THE AVAILABILITY OF ATAZANAVIR IN THE MINISTRY OF HEALTH (MOH) PUBLIC INSTITUTIONS IN MEXICO: A BUDGET IMPACT ANALYSIS

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OBJECTIVES: Studies in Mexico have shown that the health expenditure attributable to antiretroviral treatments for naive and experienced patients is high. This has an impact on the national budget of the public health institutions, especially for units dealing with the most sensitive model variables for total cost were the MRSA efficacy, hospital parameter rates, LOS, and adverse events (AEs). Com- pared individuals who received vancomycin, linezolid, daptomycin, and tigecycline. Published literature and database analyses, with validation by experts, provided clinical and pharmacoeconomic data including MRSA efficacy, length of stay, and the consequent cost of vancomycin-resistant AEs and cSSTI failure, OPAT services, among others. Cost data was derived from literature and standard CPT coding reimbursements. The base case analysis assumed equal efficacy and equal LOS of 4 days among comparators. Univariate and probabilistic sensitivity analyses tested efficacy, complication, LOS, and other resource use parameters. Costs were reported in 2008 US$. RESULTS: Total drug acquisition costs were $40.2% lower for vancomycin compared to tigecycline, linezolid, and daptomycin. However, the total 4-week cost of treatment including drugs, clinical failures, complications, and OPAT were lowest for linezolid ($8,149), followed by vancomycin ($8,974), tigecycline ($10,331), and daptomycin ($11,162). Oral linezolid reduced the outpatient medical costs by 10-fold versus IV comparators. The most sensitive model variables for total cost were the MRSA efficacy, hospital LOS, OPAT days, and line placement/complication costs. CONCLUSIONS: Although total drug acquisition costs were similar across each comparator, the model suggests linezolid provides total cost savings in cSSTI versus IV therapies, particularly in the outpatient arena. The budget impact of antimicrobials for cSSTI should consider total medical cost offsets from both inpatient and outpatient perspectives.

BUDGET IMPACT OF ANTIMALARIA DRUG FORMULARY DECISIONS: A RETROSPECTIVE ANALYSIS FROM A NIGERIAN TEACHING HOSPITAL

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OBJECTIVES: To quantify the Budget Impact of antimalarial drug formulary decisions in a Nigerian Teaching Hospital. METHODS: A retrospective random sample of 17,000 prescriptions (2001–2008) with the wholesale prices of each prescribed drug was collected from pharmacy records. The total number of prescriptions per day, the date and the therapeutic class of the prescribed drugs were also noted. From this data, estimates of the proportion of patients that received a particular antimalarial medicine and the year of introduction or deletion of the drug from the drug formulary were made. The costs of a complete dose required for the treatment of a patient suffering from malaria when prescribed a particular antimalarial drug were calculated from the extracted wholesale prices. These variables served as input in a stochastic Monte Carlo model which was built to simulate the Budget Impact of each identified formulary decision by subtracting the total cost of drugs in the Old Drug Scenario from that of the New Drug Scenario. Negative values represent cost savings. A sensitivity analysis was conducted by varying the input parameters by ± 50%. RESULTS: Halofantrine was introduced into the hospital formulary in 2002 with a resultant significant (p < 0.0001) savings of NGN0.02million with a mean of NGN0.16million. The introduction of artemisinin combination therapies (ACTs) in 2005 with the addition of artemether in 2007 led to an increase expenditure of NGN3.02million (p < 0.0001) and NGN0.7million (p = 0.171) respectively. In 2008, the number of patients that were prescribed ACTs decreased from 80.9% in 2007 to 67.9%. This strategy pro-duced a cost saving of NGN66.27million which was significant (p < 0.0001). Sensitivity analysis confirmed the robustness of the model. CONCLUSIONS: Introduction of ACTs into the hospital drug formulary significantly increased drug expenditure. We therefore suggest that a CEA of available antimalarials may prove to be a valuable tool to this budget holder.