cal disease in Singapore and Hong Kong from a payer perspective. **METHODS:** A decision-analytic model was developed to estimate the impact of vaccination with PCV13 relative to PCV7 and to PCV10 on invasive pneumococcal disease (IPD), pneumonia, and otitis media. Model inputs include disease incidence, sequelae, and mortality; serotype coverage; immunogenicity; direct and indirect effects; and costs. Specific local data were obtained from regional surveillance and published literature. Where local data were unavailable, proxy data were derived from published US sources. Vaccine costs assumed price parity to the private market unit price for PCV7 and were based on a four dose schedule. Costs and outcomes were discounted at 3%. **RESULTS:** Preliminary results demonstrated that PCV13 was dominant compared to PCV10 and compared to PCV7, both with and without indirect effects, in Singapore and in Hong Kong. The net cost savings per child vaccinated with PCV13 compared to PCV7 was S$7 in Singapore and HK$1352 in Hong Kong when including indirect effects. With direct effects only, the net cost savings per child vaccinated was S$1 and HK$4 in the respective countries. PCV13 direct effects would reduce IPD by 86% amongst vaccinated children in both regions. Results also indicated further reductions in pneumonia and otitis media burden with PCV13. **CONCLUSIONS:** These preliminary results suggest that pediatric national immunization programs with PCV13 in Singapore and in Hong Kong are expected to substantially decrease pneumococcal illness. In addition, the programs are expected to be cost-savings relative to PCV10 and to PCV7.

PIN31

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

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OBJECTIVES: Determine cost-effectiveness and cost-utility 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 Col$1968 per US$, January 2010). Utilities (in QALYs) were obtained from the Tufts CEA registry. Effectiveness was measured as further virological failures, need of "rescue therapy", AIDS-related complications, and deaths per 1000 patients (estimated through Monte Carlo probabilistic simulation). We applied a 5% discount rate for 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, 383 in the LPV/r group and 326 in ATZ/r. Rescue therapy was required in 85 occasions in the DRV/r group, 273 in the LPV/r group and 198 in the ATZ/r group, while there were 700 virological failures per 1000 patients in the DRV/r group, 1070 in LPV/r and 1080 in 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 antiretroviral therapy failure is less costly than with lopinavir or atazanavir and is significantly more effective.

PIN32

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

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OBJECTIVES: To evaluate the cost-effectiveness of 2009 pandemic influenza A(H1N1) (pH1N1) vaccination in various age and risk groups 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 vaccination. The modeled target population included hypothetical cohorts of persons aged 6 months and older stratified by age and risk. Probabilities, costs and quality-of-life weights were derived from emerging primary data on pH1N1 infections in the US, published and unpublished data for seasonal and pH1N1 illnesses, supplemented by expert opinion. The analysis used a one-year time horizon for most endpoints but also included longer-term costs and consequences of long-term sequelae and deaths. A societal perspective was used. The main endpoint was the incremental cost-effectiveness ratio in dollars per quality-adjusted life year (QALY) gained. Sensitivity analyses were conducted to evaluate the robustness of results as parameters were varied over plausible ranges, including a scenario analysis to evaluate the effect of timing of vaccination assuming a hypothetical 16-week flu season and normalized epidemic curve of illness. **RESULTS:** For vaccination initiated prior to the outbreak, pH1N1 vaccination was cost-saving for persons 6 months to 64 years with high risk conditions assuming a 15% overall attack rate. For those without high risk conditions, pH1N1 vaccination was not cost-saving but required a net investment; cost-effectiveness ratios ranged from $8,000-$52,000/QALY depending on age and risk category. Results were sensitive to the number of vaccine doses needed, costs of vaccination, illness rates, and timing of vaccine delivery. Cost-effectiveness ratios increased substantially if vaccination were initiated after the 10th week of the start of a hypothetical 16-week epidemic. **CONCLUSIONS:** Vaccination for pH1N1 for children and working-age adults is cost-effective compared to other preventive health interventions under a wide range of scenarios.

PIN33

A CLINICAL-ECONOMIC STUDY OF CASPOFUNGIN THERAPY IN THE TREATMENT OF INVASIVE CANDIDIASIS IN RESUSCITATION AND INTENSIVE CARE UNITS

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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 (CER). 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; antimycotic costs in the treatment of invasive candidiasis; antimycotic administration costs; costs of the diagnosis of adverse events following administration of an antimycotic. Efficacy and safety data were based on additional analyses of a randomised, double blind, multinational trial of antimycotics. To evaluate the degree of inaccuracy 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 amphotericin B lipid complex. When we used caspofungin or amphotericin B lipid complex shares of expenses on antimycotices were 80–87%. Lower parameters are received 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 therapy was amphotericin B. The unilateral analysis of sensitivity proves that the efficiency of expenses of the treatment of IC was more sensitive to a parameter of efficiency than to the change of the expenses connected with the price of medicines. **CONCLUSIONS:** In modern Russian conditions, in view of a high level of resistance in vitro Candida spp. to fluconazole and high toxicity of amphotericin B, the most expedient strategy is that starting what the application of caspofungin.

PIN34

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

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OBJECTIVES: *Candida* species are a common cause of nosocomial bloodstream infection. Positive blood cultures or high clinical suspicion for candidemia prompt empiric antifungal therapy. Early species identification allows earlier initiation of appropriate therapy or de-escalation to less expensive narrow spectrum therapy. Our institute used Candida PNA-FISH (Test A) to rapidly differentiate *Candida albicans* from non-*albicans* species. Two newer tests can differentiate among *albicans*, *glabrata* or others (Candida PNA-FISH dual probe, Test B) and among *albicans/parapsilosis*, *tropicalis, glabrata/krusei* or others (Candida PNA-FISH Traffic Light, Test C). This study aimed to predict cost impacts if newer tests would have been used. **METHODS:** From a hospital administration perspective, a retrospective chart review of candidemic patients between January 2007 and May 2008 was conducted to obtain costs and utilization of antifungal medications and information on species identification. Monte Carlo simulation models with certain assumptions and limitations were created to predict costs. Model inputs were determined based on real-world data. Only antifungal medication costs, incorporating doses, frequencies and 2008 average wholesale prices, were considered. One-way and probabilistic sensitivity analyses (2,500 trials) were performed. **RESULTS:** There were 140 candidemic episodes in 132 patients. *Candida* species isolated included *albicans* (43%), *glabrata (*29%), *parapsilosis* (14%), *tropicalis* (6%), *krusei* (6%), and others. Compared to Test A, median potential cost savings per patient are $37 (95% CI $14-$104, Test B) and $51 (95% CI $22-$130, Test C). Minimal cost savings per patient are $24 (Test B) and $35 (Test C) at a probability of 80%. Two key variables were identified. Potential cost savings increase with increased empiric use of micafungin or decreased prevalence of *Candida albicans*. **CONCLUSIONS:** With sole consideration of antifungal medication costs, switching from Test A to Test C is likely to yield more cost savings than switching to Test B, but cost savings may not be substantial.

PIN35

ECONOMIC EVALUATION OF CEFTOBIPROLE FOR THE TREATMENT OF COMPLICATED SKIN AND SKIN STRUCTURE INFECTIONS IN THE UNITED STATES

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OBJECTIVES: Complicated Skin and Skin Structure Infections (cSSSIs) are among the most common treated infections in the hospitals. Ceftobiprole has demonstrated efficacy in treating cSSSIs in two non-inferiority trials, including those caused by methicillin-resistant *Staphylococcus aureus* (MRSA). It is currently under review