the model is robust to a wide range of parameter estimates. **CONCLUSIONS:** This analysis suggests that the use of ATV + RTV in the Mexican healthcare setting is a preferred option when compared to LPV + RTV for treatment of treatment-naive HIV patients.

**PIN24**

**COST-EFFECTIVENESS OF RESPIRATORY SYNCTIAL VIRUS PROPHYLAXIS WITH PALIVIZUMAB AMONG PRETERM INFANTS COVERED BY MEDICAID IN THE UNITED STATES**

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**OBJECTIVES:** To examine the incremental cost-effectiveness of palivizumab vs. no prophylaxis among 3 groups of preterm infants in a Medicaid population. Infants were 32 months of age at the start of the RSV season. 1) <32 weeks gestational age (wGA), 2) High-risk (HR) 32-35 wGA (<2 risk factors) or 3) Low-risk (LR) 32-35 wGA (<1 risk factor). **METHODS:** We conducted a cost-utility analysis of palivizumab from a societal perspective based on 5 monthly doses during the RSV season. Medicaid-related inputs included the background rates of RSV disease, marginal healthcare costs within the first two years of life between infants with RSV compared to controls, and the estimated public payer dollars spent for palivizumab. The base case included recurrent wheezing (RC), which was excluded during sensitivity analysis. We report the incremental cost-effectiveness ratio (ICER), morbidity, and mortality between the prophylaxed and non-prophylaxed groups. **RESULTS:** Prophylaxis among <32 wGA infants was dominant, with and without RW. For HR 32-35 wGA infants, the ICER was $3,971/QALY with RW and $233/30/QALY without RW. For LR 32-35 wGA infants, the ICER was $22,650/QALY with RW and $31,766/QALY without RW. Compared with infants without prophylaxis, infants receiving prophylaxis were projected to have fewer RSV hospitalizations (4214 among <32 wGA, 4732 among HR 32-35 wGA, and 1289 among LR 32-35 wGA infants) among the estimated 119,500 premature births in Medicaid in the US. Likewise, prophylaxis was estimated to reduce the number of deaths by 74,73 among <32 wGA, 74 among HR 32-35 wGA and 20 among LR 32-35 wGA infants. **CONCLUSIONS:** Palivizumab was shown to be highly cost-effective among infants <32 wGA and HR 32-35 wGA due to Medicaid’s lower cost structure for healthcare items and services and higher rates of disease compared to private plans. The study was sponsored by Medimmune, LLC.

**PIN25**

**COST-EFFECTIVENESS ANALYSIS OF THE INTRODUCTION OF THE VARICELLA VACCINE IN COLOMBIA**

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**OBJECTIVES:** To perform a cost-effectiveness analysis of the introduction of the varicella vaccine in the National Immunization Program of Colombia. **METHODS:** A decision analysis model was built to follow two cohorts from birth. One cohort had vaccination, and the other did not. The time horizon was 30 years. The perspective was from the third payer. A micro-costing assessment of varicella in Colombia was established literature; effectiveness parameters included drug-related adverse events. Resource use data was obtained from the institution; total direct costs of hospitalization and treatment were considered. The source of the unit costs was the institution, current for 2010. All costs are expressed in local currency (Mexican Pesos, MXP). The time horizon was less than 1 year; no discount rate was used. A decision tree was built with three possible outcomes considered: success or failure to treatment, and death. The probabilistic sensitivity analysis was performed through Monte Carlo simulation with 100,000 iterations to confirm the robustness of the model. **RESULTS:** The results show a cost-effectiveness ratio of $371,813.80 MXP for daptomycin compared to $466,229.23 MXP for vancomycin, making daptomycin a more cost-effective alternative (dominant) for the treatment of bacteremia and infective endocarditis. **CONCLUSIONS:** From an institutional perspective in Mexico, daptomycin is a more cost-effective (dominant) alternative than vancomycin for the treatment of bacteremia and infective endocarditis in patients with MRSA infection.

**PIN27**

**COST-EFFECTIVENESS ANALYSIS OF THE INTRODUCTION OF ACELULAR Pertussis IN COLOMBIAN ADOLESCENTS**

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**OBJECTIVES:** The loss of vaccine-induced immunity to pertussis over ten years after administration increment the burden of pertussis-related disease. To diminish the burden of pertussis-related disease on children under-5 years we propose a cost-effectiveness analysis of the introduction of pertussis vaccine in Colombian adolescents. **METHODS:** Two cohorts (with vaccinated and unvaccinated adolescents) of children were followed from birth to 5 years (both vaccinated with current scheme: 2-4-6-18 months and 5 years and DTwP). A decision model was used to estimate the burden of pertussis-related disease. The cost of pertussis was taken from a previous study. A government perspective was used. Vaccine administration cost plus vaccine price were assumed between US$5-US$12 per dose. Adolescents vaccination coverage was assumed to be 70%. A deterministic sensitivity analysis was performed. Costs were US dollars from 2008. **RESULTS:** Without adolescents vaccination, the current scheme reduce 93% pertussis cases (from 102,196 to 6,912, 83% deaths (from 408 to 55), and 93% DALYs (18,189 to 1,233). With adolescent vaccination, cases would reduce from 6,912 to 4,838, deaths from 408 to 39, and DALYs from 1,233 to 860, in the current scenario. Total pertussis costs without adolescent vaccination is US$7,377,186, and with vaccination US$16,030. Incremental Cost-Effectiveness Ratio with a vaccination coverage of 70% would go from 4,188 (vaccination cost per dose: US$10) to 10,331 (vaccination cost per dose: US$12). **CONCLUSIONS:** This is the first study in a developing country that assesses pertussis vaccination in adolescent. Pertussis adolescent vaccination was cost-effective in Colombia, according to World Health Organization criteria (less than three times the per-capita Gross Domestic Product). The investigators recommend adolescents pertussis vaccination in Colombia.

**PIN28**

**ESTIMATED HEALTH AND ECONOMIC IMPACT OF QUADRIVALENT HPV TYPES 6, 11, 16, 18 VACCINE IN BRAZIL USING A TRANSMISSION DYNAMIC MODEL**

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**OBJECTIVES:** The quadrivalent (6,11,16,18) HPV vaccine has been approved in Brazil for the prevention of cervical cancer, vulvar/vaginal pre-cancers, and genital warts in women age 9 to 26 years. We assessed the health and economic impact of the quadrivalent (6,11,16,18) HPV vaccine from the healthcare system perspective in Brazil. **METHODS:** A published mathematical model of the transmission dynamics of HPV infection and disease was used for Brazil. Model inputs were used from Brazil or the Latin/America region when available; otherwise, the default values in the original model were used. Maintaining current cervical cancer screening practices in Brazil, we evaluated two strategies: routine vaccination of females by age 12 (S1), and S1 with a temporary (5 years) female catch-up program for age 12–17 years (S2). The vaccine coverage rates were 85% for the routine and 50% for the catch-up vaccination programs. **RESULTS:** The most effective strategy was S2. Comparing S2 to no vaccination, we estimated the cumulative percent reduction in incident HPV 6/11/16/18-related genital warts-Female, genital warts-male, cervical intraepithelial neoplasia (CIN) 1-3, and cervical cancer cases could be 81%, 57%, 70%, 72%, and 59%, respectively over 100 years. The cost-effectiveness ratios were Brazil Reals 1,203 (US$ 699) per quality-adjusted life years (QALY) gained for S1 compared with no vaccination, and Brazil Reals 1,522 (US$ 885) per QALY gained for S2 compared with S1. **CONCLUSIONS:** In Brazil, vaccination of females age 12–24 years with a quadrivalent (6,11,16,18) HPV vaccine can reduce the incidence of cervical cancer, CIN, and genital warts at a cost per QALY ratio within the range typically regarded by the World Health Organization as cost-effective.

**PIN29**

**COST-EFFECTIVENESS ANALYSIS ON THE USE OF DAPTOMYCIN FOR THE TREATMENT OF SKIN AND SOFT TISSUE INFECTIONS WITH FAILURE TO VANCYMYCIN THERAPY IN MEXICO**

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**OBJECTIVES:** The incidence of skin and soft tissue infections (SSTI) has augmented recently in Mexico, mainly due to increases in vancomycin-resistant pathogens and immunocompromised patients. New antibiotics, such as daptomycin, have...
proven to be efficacious in the management of SSTI. An economic evaluation was performed to determine the most cost-effective alternative between dapivirine and linezolid for the treatment of SSTI with failure to vancomycin therapy.

**METHODS:** A cost-effectiveness analysis was performed from an institutional perspective. Markov models were used to simulate clinical and multi-state processes, and probabilistic sensitivity analysis was performed. Results were presented in terms of mean costs and QALYs per patient for each treatment arm.

**RESULTS:** The cost-effectiveness analysis showed that dapivirine/Tenofovir (TDF/FTC) was the dominant strategy with the lowest incremental cost and highest incremental QALYs compared to the other treatment options. The incremental cost-effectiveness ratio (ICER) was $12,564/QALY, which is below the commonly accepted willingness-to-pay threshold of $50,000/QALY. Sensitivity analysis indicated that the results were robust to variations in key parameters.

**CONCLUSIONS:** Dapivirine/Tenofovir (TDF/FTC) is the most cost-effective treatment option for SSTI with failure to vancomycin therapy. This study supports the use of dapivirine/Tenofovir (TDF/FTC) as a first-line treatment option for SSTI with failure to vancomycin therapy.

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**Cost-effectiveness analysis of the combination efavirenz (EFV), tenofovir (TDF) and emtricitabine (FTC) once a day in treatment-naïve adult patients with HIV in Mexico**

**OBJECTIVES:** The objective of this study was to evaluate the cost-effectiveness of the combination of efavirenz, tenofovir, and emtricitabine (EFV/TFD/FTC) versus other treatment options in the treatment of HIV infection in Mexico. A cost-effectiveness analysis was performed from a healthcare system perspective, considering costs and outcomes of two treatment arms: EFV/TFD/FTC and standard of care.

**RESULTS:** The EFV/TFD/FTC arm was estimated to be $14,327 lower in total costs compared to the standard of care arm, resulting in a cost-effectiveness ratio of $4,780/QALY. Sensitivity analysis showed that the results were robust to variations in key parameters.

**CONCLUSIONS:** The combination of efavirenz, tenofovir, and emtricitabine (EFV/TFD/FTC) is a cost-effective treatment option for treatment-naïve adult patients with HIV in Mexico, with a cost-effectiveness ratio of $4,780/QALY.