three years (IPREL trial). The study objective was to estimate the cost-effectiveness of PrEP before the combination pill from the US payer perspective using both short-run and long-run outcomes. METHODS: We designed a decision-analytical model using Excel® 2013 that mimicked the IPREL trial environment to compare costs and outcomes of PrEP plus usual care versus usual care alone (i.e., participants included HIV-discordant couples). Outcomes included HIV cases averted over the trial period of 3 years and life years gained (LYG) over a lifetime time horizon. Since the adherence of PrEP was an important outcome measure in the trial, we factored in the PrEP adherence to subsequent cost-effectiveness analysis of the model. Condom effectiveness was defined as probability of remaining HIV negative, assuming consistent condom usage. All costs were adjusted to 2014. RESULTS: From our base-case analysis, the treatment arm (PrEP plus usual care) resulted in an incremental cost of $1,169,784 per HIV case averted over a 3-year time frame and incremental cost of $34,973,50 per LYG over a lifetime time horizon. Our one-way sensitivity analysis showed that condom effectiveness below 50% can make PrEP cost-effective. For comparing costs per probability of HIV infection in adult populations and PrEP strategies, as well as the sensitivity analysis was conducted to assess the following: long-term, short-term, and incremental cost-effectiveness probability of PrEP is at least 50% if the payer is willing to pay a minimum of $45,000-$50,000 per LYG. CONCLUSIONS: The short-run value of PrEP from the US payer perspective may be greater than their willingness-to-pay. Further research is warranted to understand subgroups where PrEP value may be cost-saving, while maintaining a similar overall survival rate.

**PIN53**

**COST-EFFECTIVENESS ANALYSIS OF A PARTIALLY EFFECTIVE HIV VACCINE IN SAN FRANCISCO**

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OBJECTIVES: In 2012, 35 million people were living with HIV around the world. Although a toolbox of prevention methods including condoms, risk reduction counseling, voluntary circumcision, pre-exposure prophylaxis, and microbicide development is available, a vaccine is needed for completely eradicating HIV. METHODS: A cost-effectiveness analysis of a partially effective HIV vaccine in combination with pre-exposure prophylaxis (PrEP) for high-risk populations was performed from the perspective of a United States (US) health-care payer under both short- and long-term direct costs and indirect costs of HIV. QALYs were the health outcomes attributable to the implementation of a vaccine. RESULTS: The effectiveness of PrEP may be higher than its willingness-to-pay for HIV-specific and generic health outcomes.

**PIN54**

**ROLLING OUT ORAL PRE-EXPOSURE PROPHYLAXIS (PrEP) IS A COST-EFFECTIVE HIV PREVENTION STRATEGY AMONG THE LOS ANGELES COUNTY (LAC) MEN WHO HAVE SEX WITH MEN (MSM)**

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OBJECTIVES: We assess the tradeoffs between the costs and benefits of choosing alternate HIV prevention strategies, including the status quo (current HIV testing and antiretroviral therapy [ART] initiation at CD4 ≤500), testing (expanded HIV testing with ART initiation at CD4 ≤500, test-and-treat (expanded HIV testing and early ART start), and PrEP (PrEP initiation by infected individuals) strategies. METHODS: A mathematical epidemiological model is developed to simulate the HIV incidence among 15-65 year old MSM in LAC. An economic model uses the epidemic model results to estimate the cost and effectiveness of 624 variants of the testing, test-and-treat and PrEP strategies from a societal perspective. For each strategy, we estimate the number of new HIV infections averted, the discounted costs and quality-adjusted life years (QALYs), and the incremental cost-effectiveness ratio (ICER) for a vaccine and PrEP combined was $45,704 per QALY, falling below a $100,000 per QALY willingness-to-pay threshold. An HIV vaccine and PrEP (Emtricitabine-Tenofovir combination pill) from the US payer perspective may be greater than their willingness-to-pay. Further research is warranted to understand subgroups where PrEP value may be cost-saving, while maintaining a similar overall survival rate.

**PIN55**

**ECONOMIC ANALYSIS OF EMPIRIC VersUS DIAGNOSTIC-DRIVEN STRATEGIES FOR IMMUNOCOMPROMISED PATIENTS WITH SUSPECTED ASPERGILLUS INFECTIVE Fungal INFECTIONS IN CHINA**

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OBJECTIVES: To examine the clinical and economic impact of diagnostic-driven (DD) versus empiric treatment strategies in neutropenic patients with suspected Aspergillus blood and/or invasive fungal infections (IFIs) in Beijing, Chengdu, and Guangzhou, China. METHODS: A decision-analytic model was used to estimate total costs and survival associated with a DD and empiric treatment strategy for managing suspected nosocomial Aspergillus pneumonia due to hematological malignancy or autologous/ allogeneic stem cell transplant. In the DD strategy, IFI was identified via serum galactomannan (GM) enzyme-linked immunosorbent assay (ELISA) so that early initiation of targeted treatment could be administered. If IFI was not identified, empiric treatment was performed. RESULTS: Costs were lower for the DD versus the empiric strategy in Beijing ($4,118 vs $5,245), Chengdu, ($4,573 vs $6,389), and Guangzhou ($9,762 vs $10,351). Fewer patients received antifungal treatment with the DD strategy (6.7% versus 11.4%), and survival rates were similar. One-way sensitivity analysis showed results were most sensitive to changes in GM test sensitivity followed by IFI incidence. Probabilistic sensitivity analysis using a DD strategy resulted in a survival rate of 69% of the time. CONCLUSIONS: These results suggest that in China, a DD strategy to identify IFIs in immunocompromised patients with persistent fever in order to better target antifungal treatment compared to an empiric antifungal treatment strategy may be cost-saving, while maintaining a similar overall survival rate.

**PIN56**

**ECONOMIC EFFECTIVENESS OF CETAROLINE FOSAM/ FOR THE TREATMENT OF HOSPITALISED PATIENTS WITH PNEUMOCOCCAL COMMUNITY-ACQUIRED PNEUMONIA FROM A SOCIETAL PERSPECTIVE**

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OBJECTIVES: We aimed to assess cost-effectiveness of cefaroline fosam (CF) for treatment of hospitalised patients with pneumococcal community-acquired pneumonia (CAP) in Russia from societal perspective. METHODS: Decision tree model based on results of two 3rd phase clinical trials (FOCUS1/FOCUS2) was created to assess clinico-economic implications of CAP treatment with CF against ceftriaxone (CS) (society). 4 Day early clinical response (73% vs. 56%, p=0.03) was taken for efficacy of CF direct and indirect costs associated with initial period, possible recurrence of CF, direct and delayed attributable mortality were taken into consideration. Original drug costs were extracted from wholesale prices database (wpp.com). The Ceftriaxone cost was calculated based on the average drugs used for at least 7 days in the selected trials: CF 600mg BID vs. CS 1g QD and CS 2g QD. Alternative treatment in case of inefficacy was chosen per experts’ opinion.theless, the cost-effectiveness evaluation was performed on human capital approach (Euros per QALY). Furthermore, 10% discount rate per year. All expenses are reported to US dollars at exchange rate on the date of calculation (June 2014). Uncertainty in the survival of the patients over two-year period was modelled as beta distributions. CONCLUSIONS: CF 600mg BID vs. CS 1g QD is more cost effective than the CS 2g QD in the treatment of hospitalised patients with CAP in Russia from societal perspective.