

against HBV is highly cost-effective in Viet Nam. As a low-income, endemic country where funds are limited and economic results of vaccination are uncertain, affordability options allow decision-makers to make proper health investment in vaccination strategies against HBV. In the long run, adolescents should also be universally vaccinated against HBV.

PIN19

PHONED PILL REMINDER AND SELF-ADMINISTERED TREATMENT FOR TUBERCULOSIS CONTROL IN THAILAND: COST-EFFECTIVENESS

Hunchangsinh P, Barendregt JJ, Vos T, Bertram M

The University of Queensland, Brisbane, Queensland, Australia

OBJECTIVES: To assess the cost-effectiveness of mobile phone "contact-reminder" compared to self-administered treatment (SAT) to control tuberculosis (TB) in Thailand. **METHODS:** Cost-effectiveness analysis was undertaken using a decision tree model, which included three stages of treatment; initial treatment, re-treatment, and multi-drug resistant TB treatment. Costs (2005 international dollars: \$) were calculated based on treatment periods and treatment outcomes. Health outcomes were estimated over the lifetime of smear-positive pulmonary TB patients in disability-adjusted life-years (DALYs). Both costs and health outcomes were discounted 3% annually. Mobile phone reminders are a relatively new TB treatment strategy. A pilot study reported a mortality rate far higher than observed using other strategies, but there were reasons to suspect this was influenced by the high age and comorbidities of the trial sample. We undertook a sensitivity analysis using mortality rates observed during other treatment strategies, to indicate if mobile phone reminders could be cost-effective in Thailand. **RESULTS:** Sensitivity analysis showed lowering the mortality rate to values observed in trials of other treatment strategies made the mobile phone reminder intervention more cost-effective than SAT, as a result of an increase in the DALYs averted. Using the highest (8%) and the lowest (3%) death rates from the other TB control strategies, the probability that the mobile phone intervention was more cost-effective than SAT was 98% and 100%, respectively. **CONCLUSIONS:** If further trials show the mortality rate using a mobile phone reminder system to be similar to that observed under other treatment strategies, this strategy would be more cost-effective than SAT. A bigger study with control group and proper age distribution is needed to examine the true merits of mobile phone intervention.

PIN20

A MODELED ECONOMIC EVALUATION OF RALTEGRAVIR COMPARED TO STANDARD PRACTICE IN AUSTRALIA FOR TREATMENT NAÏVE PATIENTS WITH HIV

Tilden D¹, Jackson D², LeReun C³, Harvey C⁴, Price B⁴, Chaudhary M⁵, van Bavel J⁶

¹THEMA Consulting Pty Ltd, Pyrmont, NSW, Australia; ²THEMA Pty Ltd, Sydney, NSW, Australia; ³Independent Biostatistician, Carrigaline county, Cork, Ireland; ⁴MSD, Sydney, NSW, Australia; ⁵Merck, Upper Gwynedd, PA, USA

OBJECTIVES: To assess the comparative costs and outcomes of HIV treatment algorithms with and without the use of raltegravir for treatment naïve patients. **METHODS:** A cost-utility analysis was constructed using a Markov model to assess the incremental cost per QALY gained of a HIV treatment algorithm which included raltegravir as a first line treatment compared to standard practice in Australia. Comparator treatment algorithms were constructed for patients initiating treatment with a non-nucleoside reverse transcriptase inhibitor (NNRTI) containing regimen and patients initiating treatment with a protease-inhibitor (PI) containing regimen. The economic model was a Markov cohort model with the cohort transited through five health states which reflect four lines of the treatment in each algorithm and death. The modeled population cycled through the treatment algorithm upon loss of virologic response and at each cycle are at risk of adverse events, AIDS events and death based on the treatment regimen received, viral load and CD4 count. The efficacy and safety of each treatment at each line of the algorithm was based on randomized clinical trial data and a mixed treatment comparison. Costs were calculated from the perspective of the Australian health-care system. The economic model was a lifetime model. **RESULTS:** The raltegravir algorithm was more costly than the NNRTI algorithm (A\$4487 per patient) but less costly than the PI algorithm (A\$18,383 per patient). The raltegravir algorithm had greater QALYs than both the comparator algorithms (0.17 and 0.22 per patient compared to the NNRTI and PI algorithms respectively). The incremental cost per QALY of the raltegravir algorithm compared to the NNRTI regimen was A\$26,896 which is considered within an acceptable threshold in Australia. The raltegravir algorithm dominated the PI algorithm (lower costs and greater QALYs). **CONCLUSIONS:** Raltegravir for treatment naïve patients is an effective and cost-effective intervention relative to current practice in Australia.

PIN21

COST-EFFECTIVENESS OF DAPTOMYCIN IN PATIENTS WITH INFECTIVE ENDOCARDITIS AND BACTEREMIA CAUSED BY METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS IN TURKEY

Pala M, Göl D

Novartis Turkey, Istanbul, Turkey

OBJECTIVES: To assess the cost-effectiveness of daptomycin versus glycopeptides (vancomycin and teicoplanin), the most widely used alternatives in the treatment of patients with infective endocarditis and bacteremia caused by Methicillin resistant *Staphylococcus Aureus* (MRSA) from the perspective of Turkish health-care system. **METHODS:** The clinical trials with daptomycin were powered to show non-inferiority against vancomycin. The model is based on a cost-minimization analysis, assuming

similar efficacy between daptomycin and glycopeptides. However, median length of inpatient treatment, hence hospital stay differed among therapies in the trial. A decision-analytic model was designed to estimate the use of resources and costs based on treatment duration and patterns. The model time horizon was from the first day of the hospitalization to successful treatment. Resource utilization was collected from literature and complemented with the help physician survey in Turkey. Resource use consisted of drug costs, iv and im administration costs, monitoring and hospitalization costs. Key parameters and assumptions in the model were explored in sensitivity analyses to determine their impact on the model outcome. **RESULTS:** The use of daptomycin as first-line therapy resulted in lower cost per patient despite significant daily drug cost difference between alternatives. Total health-care costs per patient were \$2069 for the daptomycin whereas \$2392 and \$2419 for the vancomycin and teicoplanin arms respectively, resulting in \$323-\$350 savings per person with daptomycin treatment. The main cost driver was drug costs, which was responsible for 66% of the total costs on average. **CONCLUSIONS:** Daptomycin is less costly than both vancomycin and teicoplanin in the treatment of MRSA induced bacteremia and infective endocarditis when used as first-line therapy. The cost-savings with daptomycin in Turkey largely stem from shorter treatment duration with daptomycin due to its highly effective and rapid bactericidal activity.

PIN22

ECONOMIC EVALUATION OF THREE-DRUG ANTIRETROVIRAL REGIMENS FOR THE PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV IN THAILAND

Verayingyong P¹, Phanuphak N², Chokephaibulkit K³, Kullert N⁴, Tosanguan K¹, Butchon R¹, Voramongkol N⁴, Boonsuk S⁵, Teerawattananon Y¹

¹Health Intervention and Technology Assessment Program (HITAP), Nonthaburi, Thailand;

²The Thai Red Cross AIDS Research Centre, Bangkok, Thailand; ³Mahidol University,

Bangkok, Thailand; ⁴Bureau of Health Promotion, Nonthaburi, Thailand; ⁵Benjalak

Chalermprakit 80 Pansa Hospital, Srisaket, Thailand

OBJECTIVES: To assess the value for money of introducing three-drug antiretroviral regimens, namely 1) zidovudine—AZT, lamivudine—3TC, and efavirenz—EFV; or 2) AZT, 3TC, and lopinavir/ritonavir—LPV/r, in comparison to the current protocol, AZT plus single-dose nevirapine—sd-NVP, for the prevention of mother-to-child transmission (PMTCT) of HIV in Thailand. **METHODS:** A decision tree was constructed to predict costs and outcomes using the Thai governmental perspective. The costs consisted of 1) program costs; 2) costs of treatment of premature birth; 3) costs of treatment of pediatric HIV infection; and 4) costs of treatment of drug resistance among mothers. All costs were presented in 2009 Thai baht. The outcome was measured in terms of quality-adjusted life-years (QALYs) gained from infant HIV infection averted. The costs and outcomes were discounted with the rate of 3% as recommended by the national guidelines. **RESULTS:** Introduction of the three-drug antiretroviral regimens yields lower costs and better health outcomes compared to AZT + sd-NVP. Although these three-drug regimens offer higher program costs and health-care costs for premature birth, they significantly save money in regard to pediatric HIV treatment and treatment costs for drug resistance in the mothers. In addition, approximately 1 QALY is averted as a result of using the regimens. Because of the lack of clinical evidence to distinguish the difference in terms of PMTCT efficacy between EFV-based and LPV/r-based regimens, the analysis favors a cheaper EFV-based regimen. Results from univariate uncertainty analysis also support the above conclusion and a tornado diagram presents the relative importance of each model input parameter. **CONCLUSIONS:** The three-drug regimens are cost-saving for PMTCT in Thailand, and findings from this study support a change in the National PMTCT guidelines in the country.

INFECTION – Health Care Use & Policy Studies

PIN23

BELIEFS ABOUT THE USE OF NONPRESCRIBED ANTIBIOTICS AMONG INDONESIAN PEOPLE: A PRELIMINARY STUDY IN YOGYAKARTA CITY INDONESIA

Widayati A¹, Suryawati S², de Crespigny C¹, Hiller J¹

¹The University of Adelaide, Adelaide, Australia; ²Gadjah Mada University, Yogyakarta, Indonesia

OBJECTIVES: In Indonesia, legislation mandates a medical prescription for purchase of antibiotics. However, the use of nonprescribed antibiotics is widespread among the population. Therefore, the aim of this study was to elicit common beliefs about the use of antibiotics without prescription among Indonesians in an urban area of Yogyakarta. **METHODS:** Adults (>18 years old) with experience of using nonprescribed antibiotics, including leftovers from previously prescribed medication were interviewed. The questions focused on the advantages, disadvantages, enabling factors and social pressure related to this behavior. Two researchers independently analyzed the qualitative data using thematic analysis. **RESULTS:** A total of 25 face to face interviews has been conducted. Saving money and saving time—as a result of avoiding a medical consultation—were two main advantages of using nonprescribed antibiotics. Moreover, this behavior was reported as preventing the participants from taking too many different types of medicines commonly prescribed by doctors. Despite insurance coverage for the cost of prescribed medicines and medical consultation fees, some participants preferred to purchase nonprescribed antibiotics out-of-pocket because of the perceived advantages mentioned. Availability of antibiotics to be purchased without prescription in pharmacies as well as their accessibility in shops, and previous