may increase the difficulty of demonstrating cost-effectiveness of a new treatment (NEW) of drug resistance. Anticipating generic entry for NEW may improve cost-effectiveness, particularly if initially of high-cost. The objective of this study was to quantify the impact of anticipated PD on reimbursement decision making in the Australian context via multi-cohort cost-effectiveness analysis. METHODS: A two state Markov model was constructed comparing NEW to SOC over 30 years. Probability of survival was assumed to be 3-times higher for NEW at 150-times the price of SOC. A price function, based on Australian PD statistics, was applied to the model. RESULTS: For integrated care models, the cost-effectiveness of NEW improved over time. ICERs ranged from $71/K/LY for Cohort 1 to $100/K/LY for Cohort 22 onwards. The threshold was crossed between Cohort 10 and 11. For all cohorts over 30 years the aggregate ICERs of NEW were less than 1, and only 19 cohorts needed to cross the threshold at an ICER of $498/K/LY. CONCLUSIONS: TTraditional CEA only supports funding of NEW from Cohort 11 onward, suggesting a potential 10 year delay to access. Aggregate CEA however supports funding of NEW immediately over 30 years. Clearly future price changes affect CEA of new treatments; failure to appropriately account for them may result in delayed access to new medications.

HC4 WHY DOES ANTI-INFECTIVE DRUG EXPOSURE INCREASE?- A DECOMPOSITION ANALYSIS ON CHINA DATA Liao X, Qian N, Tianjin University, Tianjin, China

OBJECTIVES: China spent approximately $150 billion US dollars on prescription drugs in 2010, accounting for 47% of its annual health expenditures, which has attracted worldwide attention. To investigate the causes of rising drug spending in China, we decomposed drug expenditures to document reasons for this event. Methods: 209,758 inpatient scenarios were collected from the Employee Basic Medical Insurance system covering 626 hospitals and 545 health care community centers from 2006 to 2010 in Tianjin, China. We found that 264 anti-infective drug products with 79 ingredients from 16 narrow therapeutic categories were involved in 23 scenarios. A three-factor exponential methodology was applied to measure the change and contribution of each factor. RESULTS: Using exponential-based decomposition analysis to elucidate important factors driving prescription drug expenditure growth (which increased 363% during five years), we found that the quantity effect, price effect and therapeutic choice increased by 71% and 45% respectively and price effect increased by 6% only. Six-factor analysis revealed that 2010 inpatient admission volumes increased 76% and this was the most critical spending driver. Therapeutic mix and drug mix within the therapeutic choice was the second most important factor (36%) and the third (14%) factor among these factors. In contrast, pure unit price was a negative factor (declined 10%) with respect to drug expenditures. CONCLUSIONS: The selection of more innovative/more expensive drugs over cheaper alternatives may be a potential driver for the large increase of baseline infection. Drug utilization patterns and clinical prescription behavior should be a focus of drug spending controls. Health providers, insurance agencies, and policy makers can use these data to systematically intervene in health care service improvements instead of solely focusing on drug price regulations.

INFECTIOUS DISEASE OUTCOMES RESEARCH STUDIES

IN1 COMPARATIVE SAFETY AND EFFICACY OF FOCUSED ULTRASOUND FOR CERVICAL ECTOPIES: A META ANALYSIS WITH 16180 PATIENTS Tang Y, Li J, Li Y, X West China Hospital, Sichuan University, Chengdu, China

BACKGROUND: Sexually transmitted infections(STIs) are serious public health problems and lead to tremendous burden of health and economy worldwide(account for 17% of economic loss caused by diseases in developing countries). Cervical ectopy is a common risk factor of STI(including HIV and human papilloma virus infections), especially in developing countries. OBJECTIVES: To assess the comparative safety and effectiveness of focused ultrasound(FU) and microwave(MW) for cervical ectopy. METHODS: We searched Chinese Biomedical Literature database(CBM), the Chinese Scientific Journals database(VIP),the China Academic Journals Full-text database(CNKI), MEDLINE, EMBASE, and Cochrane Library to July 31, 2013. Randomized controlled trials(RCTs) or clinical controlled trials(CCTs) were included. Two reviewers independently screened for eligible studies, extracted data and assessed risk of bias. We assessed the quality of included studies using criteria from Cochrane Handbook 5.0. Statistical analysis was performed using STATA 12.0 and 13.0 (CCTs:RR=0.91(95%CI:0.82-1.00)) both with statistical significance. Meta-analyses indicated: compared with MW: FU reduced the risk of vaginal bleed (RCTs:RR=0.12,95%CI=0.05-0.29; CCTs:RR=0.15,95%CI=0.09-0.25) and vaginal discharge (RCTs:RR=0.30,95%CI=0.19-0.47; CCTs:RR=0.45,95%CI=0.25-0.82), increased cure rate (RCTs:RR=1.07,95%CI=1.02-1.13; CCTs:RR=1.16,95%CI=1.01-1.32) and total effective rate (RCTs:RR=1.04,95%CI=1.02-1.07; CCTs:RR=1.07,95%CI=0.96-1.17); decreased recurrence rate (RCTs:RR=0.06,95%CI=0.01-0.43; CCTs:RR=0.11,95%CI=0.02-0.67). Egger’s regression analyses and funnel plots suggested likely publication bias in the safety studies. All safety and effective indicators were very low qual-

ITY. CONCLUSIONS: FU and MW are common physical therapies for cervical ectopy. But there is limited evidence that FU may improve cost-effectiveness, particularly if initially of high-cost. The aim of this study was to estimate the CE of a 3-dose bivalent HPV vaccination at ages 12 to 55 year in both rural and urban settings in China. METHODS: A previously published Markov model was used to simulate the natural history of HPV infection and including the effect of screening and HPV vaccination over the lifetime of a 100,000 female cohort for ages 12 to 55 in rural and urban China. Transition probabilities and utilities were obtained from published literature. RESULTS: The incremental cost-effectiveness ratio (ICER) for vaccination and screening compared with screening alone were estimated for each vaccination age. Reduced VE in women post-sexual debut were investigated in scenario analyses. RESULTS: With 76% vaccination coverage, a reduction of CC cases varying from 985 to 33 in rural and 691 to 32 in urban were estimated at ages 12 to 55, respectively Vaccination remains CE up to age 23 in rural and age 25 in urban, as the discounted ICERs were lower than $100,000. (NHPD 2013/capita=20,250USD, 125,723RMB). Scenario analyses with lower VE post-sexual debut confirmed the results with age 20 in rural and 21 in urban to remain CE. CONCLUSIONS: HPV vaccination program is cost-effective in rural and 25 in urban setting was showing to be cost-effective strategies for the prevention of CC in China.

IN2 COST-EFFECTIVENESS ANALYSIS OF CASPOFUNGIN COMPARED TO CONVENTIONAL AMPHOTERICIN B (C-AMB) FOR EMPERIAL ANTIFUNGAL THERAPY IN FEMALE NEUTROPENIC PATIENTS IN THAILAND Chayakulkeeree M1, Numwang K2, Lerdlitruangsin S3, Itzler R4 1Faculty of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand, 2Formerly of MSD (Thailand) Ltd, Bangkok, Thailand, 3MSD (Thailand) Ltd, Bangkok, Thailand, 4Formerly of Merck Sharp & Dohme Corp, North Wales, PA, USA

OBJECTIVES: The cost-effectiveness of caspofungin versus C-AMB for empirical antifungal therapy in patients with neutropenic fever from health care provider perspective in Thailand. METHODS: A decision-analytic model was used to project costs and outcomes of caspofungin versus C-AMB from treatment initiation until hospital discharge. Since there has not been a head-to-head comparative trial, an indirect treatment comparison was developed based on clinical trials that used the same 5-end point composite outcomes, including resolution of fever, resolution of neutropenia, resolution of baseline infection, no premature discontinuation and no premature discontinuation. Patients were stratified by the presence or absence of baseline infection. Discontinuation because of nephrotoxicity or other adverse events were also included in the model. Efficacy and safety data were obtained from Valis 2004 (Scenario I) and Walsh 1999 (Scenario II). Life expectancy, quality of life, medical resource utilization and disease-related costs were obtained from the literatures published in the past 10 years. All costs were expressed in THB 2013 values. RESULTS: Treatment with caspofungin increased life expectancy (LY) by 0.87 and 0.58 years, and resulted in additional 0.63 and 0.41 quality-adjusted life years (QALYS) when compared to C-AMB in Scenario I and II, respectively. In the base-case, use of caspofungin was cost saving in both scenarios. The results showed that caspofungin is cost-saving as long as the cost of treating nephrotoxicity is higher than 316,830 and 299,762 THB for the respective scenarios. The incremental cost-effectiveness ratio (ICER) increases if the cost of treating nephrotoxicity or the relative rate of nephrotoxicity decreases. Probabilistic sensitivity analysis supported the robustness of these findings. CONCLUSIONS: This is the first cost-effectiveness of caspofungin as empirical treatment in Thailand. Caspofungin is cost-saving and less costly compared to C-AMB, and the use of caspofungin is anticipated to have both budgetary and health benefits.

IN3 IMPACT OF MATERNAL EDUCATION ON CHILD IMMUNIZATION PROPENSITY IN CHINA Lan Y, May J University of Southern California, Los Angeles, CA, USA

OBJECTIVES: To estimate the effects of maternal education and other associated factors on the immunization propensity for children and adolescents in China. METHODS: A longitudinal cohort (2004 and 2006) was conducted in Beijing and Shanghai (Nutritional Survey) between 1991 and 2006 were used to analyze the relationship between the immunization receipt status and the potential determinants, including children’ characteristics, the household’ characteristics and the community level influences. The recommended immunization schedule for persons aged 0 through 18 in China is similar to that from Centers for Disease Control and Prevention in the U.S. Descriptive statistics were reported for the sample from 9 provinces of China as in a total of 16,545 infants were completed in many countries. The statistical model for immunization propensity as the dependent variable (i.e., any immunization received by your children during the past 12 months). Independent variables include children’s age, gender, whether preventive health care services covered by insurance, their parents’ education level, the household income, transportation time to...