delivered guidance on five of these, with three being recommended. In Australia, 10/21 of these drugs had licensing approval and seven underwent assessment by the Pharmaceutical Benefits Advisory Committee. All seven received approval for listing on the public reimbursement scheme. Similarly, CADTH assessed 16 drugs by HS in 2004. Of these, 10 received licensing approval but only one gained approval to be listed by the Canadian Expert Drug Advisory Committee. Of these 16 drugs, 14 had licensing approval in Australia and 12 underwent assessment by the PBAC, with only two being declined approval for listing on the public reimbursement scheme.

CONCLUSIONS: The current process of pharmaceutical assessment appears to give Australian patients timely access to publicly funded pharmaceucticals and that the introduction of HS for new and emerging drugs would neither decrease the time to access for patients or better inform policymakers than the system already in place.

HT2

COST-EFFECTIVENESS OF INTERVENTIONS FOR REDUCING ROAD TRAFFIC INJURIES RELATED TO DRIVING UNDER THE INFLUENCE OF ALCOHOL

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OBJECTIVES: To determine the cost-effectiveness of interventions to reduce road traffic injuries caused by driving under the influence of alcohol in Thailand.

METHODS: This study used generalized cost-effectiveness analysis. We calculated costs from a health sector perspective. The time-horizon for intervention implementation was one year. Health outcomes were measured over a lifetime. The models were traffic road crashes victims who were injured, disabled, or died due to road traffic crashes. We obtained proportions of alcohol-related crashes, by age and sex of the victims, from the Thai Injury Surveillance system. Random blood testing (RBT), selective breath testing (SBT) and mass media campaigns compared to a “do nothing” scenario. We calculated intervention costs and cost offsets of prevented treatment costs in 2004 Thai Baht and measured benefits in terms of disability-adjusted life-years (DALYs) averted. RESULTS: The study found similar incremental cost-effectiveness ratios (ICERs) of SBT and RBT. SBT was cost saving while RBT had an ICER of 1000 Baht (95% uncertainty interval [UI]; cost saving to 7200) per DALY averted if cost-offsets are included. The ICER of mass media campaigns was 8300 (95% UI: cost saving to 45,100). A combination of SBT or RBT and mass media campaigns is very cost-effective compared to a willingness to pay threshold of one times gross domestic product per capita (150,000 Baht) in 2004. CONCLUSIONS: The result shows all interventions are cost-effective, but wide variation is seen in the uncertainty ranges. Sobriety checkpoints and mass media campaigns reduce burden of alcohol-related RTI by 38,000 to 41,000 DALYS.

HT3

COST-EFFECTIVENESS OF BLOOD PRESSURE LOWERING WITH A FIXED COMBINATION OF PERINDOPRIL AND INDAPAMIDE IN TYPE 2 DIABETES MELLITUS: A TRIAL-BASED ANALYSIS USING THE ADVANCE STUDY

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OBJECTIVES: To determine the cost-effectiveness of routine administration, irrespective of blood pressure, of a fixed dose combination of perindopril and indapamide to patients with type 2 diabetes. METHODS: Propensity score-cost-effectiveness analyses within a 20 country randomized trial of 11,140 patients with Type 2 diabetes randomized to perindopril plus indapamide or placebo. We calculated cost per death averted at 4.3 years average follow-up and estimated cost per life-year gained by extrapolation.

RESULTS: The ADVANCE trial showed a 14% relative risk reduction in all cause mortality (P < 0.03) and an 18% relative risk reduction (0.8% absolute reduction) in cardiovascular mortality (P < 0.03). Hospital admissions for coronary heart disease and coronary revascularization were reduced by 5%. Per patient perindopril-indapamide cost AUS1368, but reduced total hospitalization costs by AUS410 and other medication costs (mainly other blood pressure lowering drugs) by AUS332. Quality of life, measured by the EQ-5D, was 0.80 (on a 0−1 scale); with no difference between groups. Absolute reduction in all-cause mortality was 1.1%, giving a cost per life saved of AUS49,200, and lifetime extrapolation estimated a cost per life-year saved of AUS$4,763 (discounted at 3%). CONCLUSIONS: The combination of perindopril and indapamide in patients with type 2 diabetes reduces all-cause mortality and appears cost-effective.

HT4

HEALTH TECHNOLOGY ASSESSMENT DATABASE IN THAILAND

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BACKGROUND: Health technology assessment is a pivotal tool to assist policymakers to decide whether a health technology is effective. However, the accessibility of health technology assessment information in Thailand is problematic. Attempts to develop Thai health technology assessment database has been raised. The database aims to increase accessibility and utility to policymakers, researchers and practitioners. From January 2008, Thai health technology assessment database has been available online at http://www.db.hitap.net. OBJECTIVES: The objectives of this study are to determine current contents of the database and evaluate the usefulness of the database.

METHODS: A review of the Thai health technology assessment database was conducted to determine the main characteristics of studies, the number of included studies, the number of database members, and number of visitors. Moreover, the use of the database was evaluated by an electronic mail survey to 260 website members.

RESULTS: By the end of 2009, the database consisted of 732 articles including three types of studies, 155 full economic evaluation studies, 471 randomized control trials studies and 106 quality of life studies. The number of database members is 711. The number pharmacoeconomic analyses increased from 1123 to 1717 hits per month in 2008 and 2009, respectively. For the survey results, of 260 members, 41 respondents (15.77%) replied to the electronic mail survey. Most of them used the database for studying and/or conducting a research. The usefulness of the database was found most in 65.86% of respondents. CONCLUSIONS: Thai health technology assessment database is a useful information to users. However, some types of studies should be included to support potential users’ needs. Moreover, the registration system for the members should be further improved to follow up and effectively disseminate information to users.

PODIUM SESSION I: INFECTIOUS DISEASE STUDIES

IN1

ECONOMIC AND CLINICAL BURDEN OF PNEUMOCOCCAL DISEASES AND ACUTE OTITIS MEDIA IN TAIWAN: A NATIONWIDE POPULATION-BASED DATABASE ANALYSIS

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OBJECTIVES: Streptococcus pneumoniae can cause invasive diseases such as meningitis and bacteremia, and noninvasive diseases such as pneumonia and acute otitis media (AOM), leading to high morbidity and mortality in infants and in the elderly. Limited data are available for the burden of these diseases in Taiwan. This study investigates economic and clinical burden of pneumococcal diseases and AOM in Taiwan. METHODS: A retrospective population-based National Health Insurance Reimbursement Database (NHIRD) study was performed to estimate the incidence and direct medical costs of pneumococcal meningitis/bacteremia/pneumonia and AOM from 2002 to 2007 from healthcare provider perspective, including only NHI-covered costs. RESULTS: The incidence of pneumococcal meningitis is 0.1 per 100,000 and highest at age <1 (2.4 per 100,000) and decreases with age. The incidence of pneumococcal bacteremia is 0.1 per 100,000 and peaks at 7.1 per 100,000 at 75 and above, followed by 3.7 at age 2 and 3. The incidence of pneumococcal pneumonia is 165.1 per 100,000 with peak at 1069.0 per 100,000 at age 75 and above, followed by 1290.7 per 100,000 at age 1, followed by 1076.9 per 100,000 at age 2. The AOM incidence is 2,729.1 per 100,000 with peak at 23,078.8 per 100,000 at age 1, and high in children groups (9,641 per 100,000 at age 12 and below). Annually, 120 deaths are estimated to cause by pneumococcal diseases. The total annual medical cost is US$11,886,546. The annual cost for pneumococcal meningitis is US$193,021, mainly for inpatients (US$189,794). The annual cost for pneumococcal bacteremia is US$744,573, mainly for inpatients (US$732,382). For pneumococcal pneumonia, the total annual cost is US$747,029,821 mainly for inpatients (US$66,353,242). For AOM, the annual cost is US$35,919,131, US$18,059,540 for inpatients and US$18,859,590 for out-patients. CONCLUSIONS: Our study shows huge burden of pneumococcal diseases and AOM in Taiwan. Prevention of these diseases will help reduce clinical and economic burden.

IN2

COST-EFFECTIVENESS OF DIFFERENT STRATEGIES FOR TUBERCULOSIS CONTROL PROGRAMS IN THAILAND

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OBJECTIVES: To evaluate the cost-effectiveness of different strategies to control tuberculosis (TB) in Thailand. METHODS: Strategies included directly observed treatment (DOT) by a health worker, community member, or family member, and a mobile phone “contact-reminder” system, compared to self-administered treatment (SAT). Cost-effectiveness analysis was used using a decision tree model, which had three stages of treatment; initial treatment, re-treatment, and multi-drug resistant TB (MDR-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 at 3%. RESULTS: Cost-effectiveness results did not clearly indicate a preference for any of the interventions analyzed. Although the median cost-effectiveness ratio for each DOT intervention was favorable, the uncertainty ranges surrounding the health benefits were wide, including a sizeable probability that SAT could lead to more health gain than DOT strategies. The health gain in DALY for family-member DOT was 9400 DALY (95% uncertainty interval −7200 to 25,000), for community-member DOT was 13,000 (−21,000 to 37,000) and health-worker DOT was 7900 (−50,000 to 43,000). There were cost savings (from less re-treatment or MDR-TB treatment) associated with family-member DOT (−$59 million (−$122 million to −$455 million)) as the trial treatment failure rate was significantly lower than for SAT. The mobile phone reminder system was not cost-effective, as the mortality rate in the small trial of this intervention was much lower than expected, so the intervention was not worthwhile.