"Chronic Hepatitis" in Chinese periodical full-text database, CNKI, Wanfang, CQVIP and China Biomedical Literature Database. The search period is as of December 2017 (no starting date). Finally, there were 50 valid literature were selected. **RESULTS:** The main diseases of concern were chronic hepatitis B (30, 60%) and cirrhosis (12, 24%). There were 32 articles (64%) analyzed the development process and applicability of TCM QOL scale,11 (22%) were single evaluation of the literature on QOL of patients during studies conducted, and only 7 (14%) evaluated the impact of interventions on patient QOL. In the aspect of using the QOL scale, 35 articles (70%) used only the QOL scale based on TCM theory,7 articles (14%) also used SF-36, 6 articles (12%) additionally used the CLDQ scale, and only 2 articles (4%) used mental health measurement scale(SAS, SDS) simultaneously. These articles involved 27 QOL scales based on TCM theory, chronic hepatitis B(16, 59.26%), cirrhosis of liver (8, 29.63%) and chronic hepatitis C (3, 11.11%). TCM symptom scales (28 times, 56%) have higher application frequency, the next are The Chronic Hepatitis B Patients PRO scale (TCHB - PRO) (5 times, 10%), TCM liver disease PRO scale (4 times, 8%), Chronic Hepatitis B Chinese characteristics PRO scale (3 times, 6%), etc. **CONCLUSIONS:** The QOL scale developed on the basis of TCM theory of liver disease has gradually increased. But there are still many problems, such as not so standardized scale development program, mainly TCM syndromes, and less involved psychological and social support. The existing scales are mostly non-preference-based scales that could not be used for cost-utility analysis (CUA) of different interventions.

PMU68

THE EVALUATION OF THE QUALITY OF LIFE AMONG CHRONIC HEPATITIS PATIENTS IN CHINA BASED ON BIBLIOMETRIC ANALYSIS

Ran X, Wu H, Cai Y, Zhang T
Guizhou Medical University, Guiyang, China

OBJECTIVES: To analyze the application status of health-related quality of life scale (HRQOL) in the field of chronic hepatitis in China, and to provide references for the selection of HRQOL scale. **METHODS:** The study was a retrospective analysis, as of December 2016, a total of 233 valid papers published in academic journals in China. The 12 indicators were extracted from the literature for statistical analysis (including basic information, research content, quality of life (QOL) scales, etc). **RESULTS:** A total of 173 articles (74.25%) evaluated the QOL of patients' with chronic hepatitis B, then the liver cirrhosis (33 articles, 14.16%). 103 articles (44.21%) were single evaluations of patients' QOL during the study period, and 130 articles (55.79%) evaluated the impact of single or multiple interventions on patients' QOL. Scale application aspects, 157 articles (67.38%) only choose single QOL questionnaire to evaluate the patient's QOL, universal scale (124, 78.98%), special scale (17, 10.83%), mental health measurement scale (16, 10.19%). 70 (30.04%) papers also used two or more kinds of scales to evaluate the patients' QOL. Among them, if a single scale was chosen, the researchers chose SF-36 (83 papers, 66.94%), CLDQ (8 papers, 47.06%) and SAS combined with SDS scale (8 papers, 50%). If two or more types of scales were chosen simultaneously, the researchers chose SF-36/WHOQOL-BREF which combined with CLDQ scale (13 articles, 18.57%), SF-36/WHOQOL-BREF/GQOLI-74/CLDQ combined with SAS and SDS scale (19 articles, 27.14%). In addition, a few papers still use QLICD (5 articles) and QLICD-CH (3 articles). **CONCLUSIONS:** There are still some problems in the HRQOL assessment of chronic hepatitis in China. For example, most researchers only chose universal scale to evaluate QOL rather than chose different types of scales. The scales that are developed by foreign institutes or researchers are chosen more frequently than domestic ones, etc.

PMU69

WILLINGNESS TO PAY PER QUALITY-ADJUSTED LIFE IN TAIWAN

Chen P[1], Lee Y[2]
[1]*University of Taipei, Taipei City, Taiwan,* [2]*National Yan-Ming University, Taipei City, Taiwan*

OBJECTIVES: This study sought to determine the willingness of individuals to pay (WTP) for a quality-adjusted life year (QALY) from the individual perspective in Taiwan. **METHODS:** This study conducted a computer-assisted telephone interview (CATI) survey, based on EQ-5D, of a nationally representative sample of 1217 adults aged 20 and older in 2013. Respondents were asked to rank two scenarios of health state (23 pairs in total) according to preference. They were also asked how much they would be willing to pay to attain a given improvement in health status. Those who are unable to answer this open question would then enter an iterative bidding procedure to determine approximate WTP values. WTP per QALY was obtained by dividing WTP by the difference between the QALY of two health states. We also evaluated the effects of the following factors on the WTP/QALY ratio: gender, age, education, marital status, occupation, monthly household income, region of residence, and self-reported health score obtained using the GEE model. **RESULTS:** Most of the participants were female (54.48%), 20 to 39 years old (30.37%) (mean age of 47), with a college or higher education (35.77%), married (73.25%), of a level 4 occupation (38.92%), with moderate monthly household income (38.33%), urban dwelling (59.98%), a mean self-reported health score of 72.48 and without disease (73.05%). The mean WTP per QALY was USD 32,833 (1 USD=29.77 NTD in 2013) based on VAS valuations, and the mean WTP per QALY was USD 45,085, based on UK EQ-5D tariffs. Occupation, monthly household income, and region of residence were shown to be significant factors associated with the WTP per QALY ratio. **CONCLUSIONS:** The WTP per QALY ratios estimated in this study were approximately 1.57-2.15 times the 2013 per capita GDP in Taiwan. This result provides a reference to guide policymakers in the setting of priorities for health insurance coverage.

PMU70

WILLINGNESS TO PAY FOR A QALY WITH AN INQUIRY INTO THE DIFFERENT PERSPECTIVES AND CONTEXTS IN JAPAN

Igarashi A[1], Goto R[2], Yoneyama-Hirozane M[3]
[1]*University of Tokyo, Tokyo, Japan,* [2]*Keio University, Yokohama, Japan,* [3]*Office of Pharmaceutical Industry Research, Tokyo, Japan*

OBJECTIVES: Theoretically, willingness to pay (WTP) for quality adjusted life years (QALY) can differ between social and personal preferences and between ex-ante and ex-post settings. However, empirical investigation for these differences is still lacking. In Japan, setting the threshold has been controversial during the process implementing HTA, started from 2016 as a pilot. Our objective is to estimate WTP values with different perspectives and contexts. **METHODS:** We performed a web-survey to measure WTP for one additional QALY in individual, social, and social inclusive perspectives. In addition, two contexts (ex ante and ex post) at the end-of-life (EoL) were measured. Double-bound dichotomous choices for hypothetical choice setting for drugs, which payers and beneficiaries are varied by scenarios, were adopted to this research. 1,030 respondents, representative of the Japan population, were sampled from an online panel and answered one of 10 questionnaire decks, which varied for the amount of QALY losses (2 levels) and the starting point of WTP (5 levels). **RESULTS:** WTP per QALY varies significantly, according to three perspectives, different health states and two contexts of EoL. WTP in non-EoL setting can be changed two times. WTP in EoL setting differs substantially, too. **CONCLUSIONS:** WTP values were sensitive to different perspectives, uncertainty in the future, health states and incomes. The use of uniform threshold needs to be careful in policy settings, because the fixed threshold may not reflect diverse preferences based on different situations of each individual.

PMU72

A PILOT STUDY FOR ESTIMATION OF WILLINGNESS-TO-PAY PER QUALITY ADJUSTED LIFE YEAR (WTP PER QALY) AS COST EFFECTIVENESS THRESHOLD IN INDONESIA

Endarti D, Andayani TM, Kristina SA, Rokhman MR
Faculty of Pharmacy, Universitas Gadjah Mada, Yogyakarta, Indonesia

OBJECTIVES: Cost-utility analysis requires cost effectiveness threshold to interprete the acceptability of the cost effectiveness ratio. Cost effectiveness threshold is setting specific based on each country contex. This study aimed to estimate the WTP per QALY as cost-effectiveness threshold for pharmacoeconomic study in Indonesia. **METHODS:** A pilot study for estimation of WTP per QALY was conducted using community-based survey in Yogyakarta Province. A sample size of 1500 general population respondents was selected using stratified sampling. Three versions of instrument including version of moderate disease, terminal disease, and life saving treatment were employed. The instruments which were based on hypothetical scenario consisted of three parts, namely socio-demographic information, utility elicitation, and WTP elicitation. **RESULTS:** There was significant different of utility gain among moderate disease, terminal illnes, and life saving treatment. Utility gain measured with EQ-5D index score in moderate illness, terminal illnes, and life saving were 0.539; 0.883, and 0.945, respectively. There was significant different of the average of maximum amounts of willingness to pay moderate disease, terminal illnes, and life saving treatment which were IDR 11,478,153; IDR 31,511,155; IDR 76,247,305 for moderate disease, terminal illnes, and life saving treatment, respectively. Finally, there was significant different of the average of WTP per QALY among moderate disease, terminal illness, and life saving treatment, which were IDR 34,702,926 (SD=61,514,456); IDR 194,976,141 (SD=350,974,703); and IDR 192,514,839 (SD=301,386,928), respectively. The values of WTP per QALY ranged from 1 – 4 times of GDP per capita of Indonesia. **CONCLUSIONS:** This study gives insight of the method and estimated value of WTP per QALY as cost effectiveness threshold in Indonesia. Further study should be conducted to estimate WTP per QALY for larger and various population based on geographical and sociodemographic characteristics in Indonesia and from patients perspective.

PMU73

ESTIMATING THE WILLINGNESS TO PAY TO AVOID THE IMPACTS OF FOODBORNE ILLNESSES: A DISCRETE CHOICE EXPERIMENT

Manipis K[1], Mulhern B[2], Pearce A[1], Haywood P[1], Viney R[1], Goodall S[1]
[1]*University of Technology, Sydney, Sydney, Australia,* [2]*University of Technology Sydney, Sydney, Australia*

OBJECTIVES: To generate estimates of willingness-to-pay (WTP) to avoid foodborne illness (FBI), specifically two acute (gastrointestinal (GI) and flu-like illness) and four chronic (irritable bowel syndrome (IBS), Guillian-Barre syndrome, reactive arthritis, and haemolytic uraemic syndrome (HUS)) illnesses. **METHODS:** A discrete choice experiment was designed. The vignettes and attributes developed were based on the literature and clinician input. Respondents were randomised to complete 20 DCE tasks for two different illnesses, with mild and severe health states, and asked to select their preferred choice set from one of two options. Attributes related to work participation, such as the ability to work and availability of sick leave were included, as were costs of treatment to alleviate symptoms, and illness duration. Choices were modelled using conditional logit regression and adjusted for condition severity. **RESULTS:** A total of 1,918 respondents completed the survey. The WTP to avoid a severe illness was higher than a mild illness. The marginal WTP (MWTP) was affected by paid sick leave: for example, the MWTP to avoid mild GI increased by $139 without paid sick leave. The MWTP to avoid a mild chronic illness for one year, ranged from $344 for IBS to $901 for HUS, and when severe ranged from $964 for IBS to $1,620 for HUS. There was a substantial increase in the MWTP to avoid all the chronic conditions when the ability to work reduced and sick leave was not paid, ranging from $9,906 for severe IBS to $11,652 for severe HUS. **CONCLUSIONS:** The explicit inclusion of factors that reflect productivity and compensation to workers influenced the WTP to avoid a range of FBIs for both acute and chronic conditions, and across both mild and severe conditions. The results indicate that both the severity of the FBI and consideration of the effect on productivity were important factors.

NEUROLOGICAL DISORDERS - Clinical Outcomes Studies

PND1

FROM INVESTIGATIONAL PRODUCT TO ACTIVE REFERENCE: EVOLUTION OF ORAL SUMATRIPTAN EFFICACY VERSUS PLACEBO FOR THE TREATMENT OF ACUTE MIGRAINE EPISODES AND POTENTIAL IMPACT IN COMPARATIVE ANALYSES

Thokagevistk K[1], François C[1], Brignone M[2], Toumi M[1]
[1]*Creativ-Ceutical, Paris, France,* [2]*Lundbeck France SAS, Paris, France*

OBJECTIVES: Some studies have illustrated that the relative efficacy and safety of widely used drugs can vary over time substantially. Possible influencers may include changes in population characteristics, inclusion or exclusion criteria such as patients with prior exposure to the active reference, or variation in the placebo response. Sumatriptan was considered as an illustrative case to examine this phenomenon, as it has steadily been used as a reference treatment over time for acute migraine episodes. **METHODS:** A systematic literature review of randomized controlled trials (RCTs) of adults suffering from acute migraine episodes evaluating oral sumatriptan versus placebo was performed in Medline for the period from before and shortly after approval (1991) to the following 15 years. Meta-analyses were performed using the inverse-variance weighted average method to estimate the odds-ratios of the occurrence of pain-free at 2 hours and of any adverse event, by time period. **RESULTS:** Out of the 67 RCTs identified, pain-free at 2 hours and any adverse event outcomes were reported in 25 and 28 studies, respectively. The odds ratio (95% CI) for the occurrence of pain-free for sumatriptan versus placebo was first evaluated at 3.13 (1.67-5.86) with meta-analysis based on the first RCTs assessing sumatriptan before or shortly after approval (1991-1994) and increased up to 4.14 (3.67-4.67) using also RCT data post-approval (1995-2006). No specific variation was observed in the relative tolerability effect of sumatriptan over placebo over time. **CONCLUSIONS:** This research provides new evidence that the relative effect of widely used drugs such as sumatriptan can evolve over time substantially. This issue is particularly problematic when network meta-analysis or indirect comparisons are subsequently performed to evaluate the potential of a new drug, compared to widely prescribed older drugs. Assessment of this effect should be evaluated when making comparative analyses.

PND2

A SYSTEMATIC REVIEW OF TRADITIONAL CHINESE MEDICINE TREATMENT OF ALZHEIMER'S DISEASE

Yang K
The University of Newcastle, Newcastle, Australia

OBJECTIVES: To systematically review and evaluate the clinical effectiveness of TCM in AD patients. **METHODS:** Three electronic databases (Medline, Cochrane Library and China National Knowledge Infrastructure) were searched for clinical studies investigating the efficacy of TCM or TCM and western medicine in AD patients from 1 January 2010 to 10 March 2016. Meta-analyses were conducted for studies with sufficiently homogenous outcome measure and study designs using RevMan 5.3, with results reported as relative risk (RR). 15 articles involving 1124 AD patients met the selection criteria and were analyzed. **RESULTS:** When pooled together, regardless of adding onto western medicine or alone, TCM was more effective than western medicine alone (RR, 1.20; 95%CI:1.14-1.28). For subgroup analyses of TCM vs. western medicine, TCM again produced significantly better outcome compared with western medicine (RR, 1.21; 95%CI:1.11-1.31).TCM plus western medicine interventions also showed statistically significant better effects compared with the western medicine alone (RR, 1.20; 95%CI:1.10-1.31). **CONCLUSIONS:** This systematic review suggested that managing AD with TCM or TCM and Western medicine combination are more effective than Western medicine alone. However, limitations of method and quality in the included trials would require further long-term clinical studies with larger sample size to confirm the results.

NEUROLOGICAL DISORDERS - Cost Studies

PND3

BUDGET IMPACT ANALYSIS OF EXTENDED-RELEASE PHENYTOIN CAPSULE (ORIGINAL) COMPARED WITH IMMEDIATE-RELEASE PHENYTOIN CAPSULE (GENERIC) FOR EPILEPSY PATIENTS IN THAILAND

Tiamkao S[1], Suthipinijtham P[2], On behalf of Integrated Epilepsy Research Group KK [1]
[1]*Khon Kaen University, Khon Kaen, Thailand,* [2]*Pfizer (Thailand) Lmited, Bangkok, Thailand*

OBJECTIVES: The availability of antiepileptic drugs per hospital and the incorrect drug administration are the major epileptic treatment problems, especially for phenytoin as it may cause uncontrolled seizures or adverse events. This study estimated the budget impact of extended-release phenytoin capsule compared with immediate-release phenytoin capsule for epilepsy patients in Thailand. **METHODS:** Decision tree model was developed to estimate total budget impact for 3 scenarios; scenario 1: All prescriptions were original, scenario 2: All prescriptions were generic, and scenario 3: All prescriptions were based on the current phenytoin market share. Thai epilepsy epidemiology, consequences of uncontrolled seizure and costs were derived from the systematic review literatures and Thai hospital database. All costs were adjusted for the year 2017 and analyzed from payer and societal perspectives. One way sensitivity analysis was performed. **RESULTS:** Of 95,613 patients receiving phenytoin, there were 57,368 cases controlled epilepsy and 38,245 cases uncontrolled epilepsy which caused 229,471 seizures/year. Total scenario 1 budget was 1,476,131,325 to 1,639,184,886 baht from payer and societal perspectives. For scenario 2, total controlled and uncontrolled cases were similar to scenario 1. Either uncontrolled patients taking drug once daily (OD) or 3 times/day (TID) would result to seizures 128,504 times/year and 563,886 times/year, respectively. Total scenario 2 budget was 3,405,019,828 to 3,651,446,719 baht from payer and societal perspectives. Scenario 3 was estimated from 73% of original share (69,797 cases) and 27% of generic share (25,815 cases). Seizures occurred 167,514 times/year in original group, 34,696 times/year in generic TID group and 152,249 times/year in generic OD group which accounted for total budget impact 1,996,931,213 to 2,182,495,573 baht from payer and societal perspectives. **CONCLUSIONS:** Prescribing extended-release phenytoin tended to have the lowest total budget impact compared with the other 2 scenarios. Policy recommendation developed from this research would help solving antiepileptic drug issue in Thailand.

PND4

NON-INVASIVE FETAL RHD GENOTYPING OF RHD NEGATIVE PREGNANT WOMEN FOR TARGETED ANTI-D THERAPY IN AUSTRALIA: A COST-EFFECTIVENESS ANALYSIS

Gordon L[1], Flower R[2], Hyland C[2]
[1]*QIMR Berghofer Medical Research Institute, Brisbane, Australia,* [2]*Australian Red Cross Blood Service, Brisbane, Australia*

OBJECTIVES: To prevent hemolytic disease of the fetus and newborn, routine antenatal care in many countries involves RhD immunoglobulin (anti-D) being offered to all RhD negative pregnant women. Recent advances in non-invasive cell-free fetal DNA testing of the RHD gene has made targeted administration of anti-D possible to women with a baby predicted to be RhD positive. Our objective was to undertake a cost-effectiveness analysis and budget impact analysis of non-invasive fetal RHD genotyping to target pregnant women for antenatal anti-D prophylaxis therapy. **METHODS:** A decision-analytic model was constructed to compare RHD testing and targeted anti-D prophylaxis, with current universal anti-D prophylaxis among pregnant women with RhD negative blood type. Model estimates were derived from national perinatal statistics, published literature, donor program records and national cost sources. One-way sensitivity analyses addressed the uncertainty of variables on the main findings. **RESULTS:** The unit cost for RHD genotyping was estimated at AU$45.48 (US$31.84). The 'mean cost per healthy baby' was AU$7,495 (US$5,247) for universal prophylaxis and AU$7,471(US$5,230) for targeted prophylaxis. The findings were sensitive to the unit costs of anti-D 625 IU (AU$59-$88) (US$41-62), the genetic test (AU$36-$55)(US$25-39) and, packaging/transport costs of the samples for testing (AU$15-40, US$11-28 per sample). With RHD genotyping, 13,938 women would avoid antenatal anti-D prophylaxis at a total cost-savings to the National Blood Authority of AU$2.1 million (US$1.5 million) per year. To the health system, net cost savings of AU$159,701 (US$111,791) per year (0.05%) were predicted for total healthcare costs. **CONCLUSIONS:** Routine RHD genotyping for RhD negative women during pregnancy would produce substantial cost-savings for the Australian National Blood Authority while being cost-neutral to the whole health system. Notwithstanding the vulnerable supply of donor plasma and other ethical and health concerns, RHD genotyping is an economically sound option for Australia.

PND5

COST ANALYSIS OF ANTI-EPILEPTIC DRUGS (AEDS) PRESCRIPTION IN VALENCIAN COMUNNITY, SPAIN

Ramos MA, Vivas-Consuelo D, Caballer Tarazona V
Universitat Politècnica de València, Valencia, Spain

OBJECTIVES: Analysis of the economic impact, usage and cost of the different therapies prescribed to Epilepsy patients in the Valencian Community, Spain. **METHODS:** The patients were indentified through the ATC code N03A, in the database of the Valencian Community where all the prescribed medication information/data is kept, for the 2014. In the analysis, the medication is classified by therapies monotherapy or combination, and by generation of the active drug. **RESULTS:** There were indentified 26,972 patients that consumed at least one AED, this represents 5,7/ 1000 inhabitants. From these patients, the majority was prescribed second generation AEDs (63.6%), as monotherapy or in combination. The cost of these second generation AEDs was 61.8% of the total costs of AEDs. The Leviracetam (LVT) was the most prescribed AED, a 31.8% of the patients in total, and not taking into account the therapy applied. The prescription of this medication was 43.6% of the total cost of AEDs prescribed. Additionally, the 21.4 % of epileptic patients were prescribed Sodium Valproate (SV), either in mono or combination therapy, resulting as a 4.2% of the total costs. Lastly, analysing the third-generation AEDs prescribed, were 12.8% of the total patients, either in mono or combination therapy. These represented 27.3 % of the total costs, being lacosamide (LCM) the most prescribed. **CONCLUSIONS:** The second generation AEDs continue to be the most prescribed, and with higher costs, being Leviracetam (LVT) the therapy most elected for the treatment of epilepsy. More studies are being conducted to follow-up the trend.

PND9

COST-EFFECTIVENESS OF THE PDSAFE HOME-BASED PERSONALIZED PHYSIOTHERAPY INTERVENTION TO PREVENT FALLS AMONG PEOPLE WITH PARKINSON'S: AN ECONOMIC EVALUATION ALONGSIDE A RANDOMISED CONTROLLED TRIAL

Xin Y[1], Ashburn A[2], Seymour KC[2], Marian I[3], Hulbert S[2], Fitton C[2], Pickering R[2], Rochester L[4], Roberts HC[2], Nieuwboer A[5], Kunkel D[2], Goodwin V[6], Ballinger C[2], Lamb SE[3], McIntosh E[1]
[1]*University of Glasgow, Glasgow, UK,* [2]*University of Southampton, Southampton, UK,* [3]*University of Oxford, Oxford, UK,* [4]*Newcastle University, Newcastle, UK,* [5]*KU Leuven, Leuven, UK,* [6]*University of Exeter, Exeter, UK*

OBJECTIVES: PDSAFE is an individually-tailored, physiotherapist delivered balance, strength and strategy training programme aiming to prevent falls among people with Parkinson's (PwP). The objective of this study was to evaluate the cost-effectiveness of PDSAFE compared with usual care for PwP who are at a higher risk of falling from a UK NHS and Personal Social Service (PSS) perspective. **METHODS:** 238 PwP were randomised to the intervention group, receiving 12 physiotherapy sessions over 6-months; and 236 to the control group, receiving usual care (PDSAFE trial: ISRCTN48152791). Resource use and EQ-5D-3L data were collected at baseline, 3 months, 6 month, and 12 months. Missing data were imputed with multiple imputation. Generalized linear models were used to predict differences in costs and QALYs adjusting for baseline utility, baseline resource use, and the key demographics and medical history variables. A 1000-iteration Bootstrapping was conducted to investigate the uncertainty surrounding the Incremental cost effectiveness ratio (ICER) estimate. **RESULTS:** At six months, the intervention group is