a new part in terms of existing questionnaires – evaluates the homogeneity of the reported results and statistical methods, which are extremely important in preparing health technology assessment reports. At the moment the validation of developed scale is in progress – the results of evaluation will be presented at the conference. **CONCLUSIONS:** Improving standards of quality assessment of observational comparative effectiveness research (CER) is used in many medical fields recently. This study aims to assess design and reporting qualities of PRCTs published in joint replacement fields. **METHODS:** We searched the Medline, Embase, CENTRAL to February 2014 and the reference lists of retrieved studies to identify the full-report pragmatic randomized control trial (PRCT) in many aspects. The number of PRCT in joint replacement field is limited in many countries. The single best performing item was investigating defined in pharmacoeconomics is that the ICER, \( L_k \), of a new technology can be accepted if the incremental effectiveness of the new technology is greater than the amount of \( B_{\text{max}} \) divided by \( N \) times \( L_0 \). On the contrary, although the new technology cannot be accepted (i.e., \( L_0 > L_k \)) under the conventional single-threshold approach, it should be accepted if the incremental effectiveness of the new technology is smaller than \( B_{\text{max}} \). (See Table 2.) **CONCLUSIONS:** Our approach offers multiple decision criteria for assessing a new health care technology with respect to the cost-effectiveness and its acceptability under the budget constraint. The theory, which links single-ICER decision with budget impact has a potential to improve value-based decision making in government based on price-volume consideration of a new technology.

**PM34** HOW WELL THE PRAGMATIC RANDOMIZED CONTROLS IN JOINT REPLACEMENT FIELD: RESULTS FROM PRECIS, CONSORT AND IOM TOOLS' ASSESSMENT

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**OBJECTIVES:** Evidence from real world are important for patients care. Pragmatic randomized control trial (PRCT) as one of the research methods of Comparative Effectiveness Research (CER) is used in many medical fields recently. This study aims to assess design and reporting qualities of PRCTs published in joint replacement fields. **METHODS:** We searched the Medline, Embase, CENTRAL to February 2014 and the reference lists of retrieved studies to identify the full-report pragmatic randomized control trial (PRCT) in many aspects. **RESULTS:** We screened 55 potentially eligible abstracts and identified 6 full-text PRCTs of joint replacement final. **CONCLUSIONS:** The method of health technology assessment, tools applied were not carefully constructed and culturally inappropriate to the research participants was specifically not inclusive, an interview usually held in haste by environments and improper mechanism for field research. Research participants were able to conduct the proper activities in seeking more truly research results from a review board. A careful procedure of research methodology indicates to corporate in a provision of research information. The objective of this paper is to improve value of medical devices along with methods for incorporating patients' preferences within the frame of specific case. Finally, a final method for evaluating devices that provides time profile of costs by stakeholder. **CONCLUSION:** Cost-effectiveness evaluation of medical devices is quite different to that of pharmaceutical drugs. An overview of current methods for evaluation of medical devices and the issues involved are described along with a tentative framework proposal for cost-effectiveness modelling of devices.

**PM35** USE OF THE GRACE CHECKLIST FOR RATING THE QUALITY OF OBSERVATIONAL COMPARATIVE EFFECTIVENESS RESEARCH

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**OBJECTIVES:** To determine the best algorithm for using the GRACE checklist to rate the quality of observational comparative effectiveness research (CER) studies. **METHODS:** An 11-item checklist about data and methods was developed through literature review and consultation with experts. The checklist was applied to 88 articles by 113 raters from 5 continents, and their feedback helped shape the single best performing item. Multivariate regression analysis to four regioisomeric epoxyeicosatrienoic acids (EETs) was the highest and considered to be more closer to the real world than other two articles as it was used in 2325 patients from 34 UK centers and 116 surgeons in the study could adjusted their treatments based on individual characteristics of interested patients. CONCLUSIONS: The knee replacement (TKR) with the clinical, economic and patient-centered outcomes. The Knee Arthroplasty Trial (KAT) offers multiple decision criteria for assessing a new health care technology with respect to the cost-effectiveness and its acceptability under the budget constraint. The theory, which links single-ICER decision with budget impact has a potential to improve value-based decision making in government based on price-volume consideration of a new technology.

**PM36** THE DECISION CRITERIA FOR ASSESSING COST-EFFECTIVENESS OF A HEALTH CARE TECHNOLOGY UNDER BUDGET CONSTRAINT

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**OBJECTIVES:** To develop multiple decision criteria for assessing cost-effectiveness of a new health care technology under the budget constraint often experienced in government managing the national health insurance system. METHODS: Let \( \text{ICER} \), \( B_{\text{max}} \), and \( N \) be, respectively, the ICER of a new technology compared to its companion cost-effective threshold and the number of patients with \( \text{ICER} \) exceeding threshold, respectively. **RESULTS:** The single-threshold decision making defined in pharmacoeconomics is that the ICER, \( L_k \), of a new technology can be accepted if and only if \( L_k \) is smaller than the pre-defined ICER threshold, \( L_0 \). We proved, however, this conventional decision should be changed into more complex situations. one that a new technology having the ICER smaller than \( L_0 \) should not be accepted if the incremental effectiveness of the new technology is greater than the amount of \( B_{\text{max}} \) divided by \( N \) times \( L_0 \). On the contrary, although the new technology cannot be accepted (i.e., \( L_0 > L_k \)) under the conventional single-threshold approach, it should be accepted if the incremental effectiveness of the new technology is smaller than \( B_{\text{max}} \). (See Table 2.) **CONCLUSIONS:** Our approach offers multiple decision criteria for assessing a new health care technology with respect to the cost-effectiveness and its acceptability under the budget constraint. The theory, which links single-ICER decision with budget impact has a potential to improve value-based decision making in government based on price-volume consideration of a new technology.

**PM37** METHODS FOR EVALUATION OF MEDICAL DEVICES

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**PURPOSE:** Evaluation of medical devices faces different challenges to that of the pharmaceutical drugs i.e., the approaches for cost-effectiveness modelling of pharmaceutical drugs are not suitable for evaluation of devices. For example, the value of a device that goes beyond the health benefits (i.e. QALYs) to the patient as it might include other aspects such as increased efficiency, patient dignity, etc. Similarly, traditional cost modelling techniques are not suitable for evaluation of devices. **RESULTS:** The costs are not evenly spread across time and depend on implementation strategies (i.e. parameters such as volume, scale, etc) and there is a need for a modelling framework that can output time profile of costs by stakeholder. Furthermore, the cost-effectiveness depends on the service setting (i.e. parameters such as volume and scale of deployment). **METHODS:** This presentation describes the lessons learned while evaluating the cost-effectiveness of diagnostic tests and devices. The details of the different projects are as follows a) Financial modelling of telemonitoring for HF and COPD, b) Cost effectiveness of Cardiac Magnetic Resonance imaging for ischaemic cardiomyopathy, c) Cost-effectiveness of Telemonitoring technologies for congestive heart failure. **RESULTS:** A brief description of the context that makes HTA of medical devices different from pharmaceutical drugs is detailed. An overview of current approaches of evaluating devices at different HTA bodies is provided. A taxonomy to represent the value of medical devices along with methods for incorporating patients' preferences within the framework of specific case. Finally, a final method for evaluating devices that provides time profile of costs by stakeholder. **CONCLUSION:** Cost-effectiveness evaluation of medical devices is quite different to that of pharmaceutical drugs. An overview of current methods for evaluation of medical devices and the issues involved are described along with a tentative framework proposal for cost-effectiveness modelling of devices.

**PM38** ETHICAL CONSIDERATION ON METHODS OF HEALTH RESEARCH

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**OBJECTIVES:** To investigate the ethical issues involved are described along with a tentative framework proposal for cost-effectiveness modelling of devices.

**PM39** WX III-287-19 A POSSIBLE THROMBOSOME ANTAGONIST IN BOVINE CORONARY ARTERIES

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Endothelium-dependent hyperpolarizations and relaxation of vascular smooth muscle induced by acetylcholine and Bradykinin are mediated by endothelium-derived hyperpolarizing factors (EDHF). Arachidonic acid is metabolized by cytochrome-P450 (CYP) to four regioisomeric epoxyeicosatrienoic acids (EETs) that function as EDHFs. 5,6-, 8,9-, 11,12- and 14,15-EET are equivalent in relaxing bovine coronary arteries (BCAs). The miconazole analog, WX III-287-19 was synthesized and compared to EETs in causing relaxations of BCAs. EETs vascular relaxation response was recorded using micrometric tension recording. RCA metabolism of 20-HETE was analyzed by mass spectrometry. In U-46619-preconstricted arterial rings, WX III-287-19 caused concentration-dependent relaxation with maximal relaxation ranging from 96-100%. However, relaxations by 5,6-, 8,9-, 11,12- and 14,15-EETs were less than WX III-287-19. Preincubation with the
EET antagonist, 14,15-EEZE (10−8 M) did not inhibit relaxation to WX-III-287-19, but inhibited relaxation to 5,6-8,9-11,12 and 14,15 EETs. Preincubation with the iberiotoxin (10−6 M) only partially inhibited the relaxation induced by WX-III-287-19 whereas high K+ (60 mM) significantly inhibited relaxation to WX-III-287-19. In whole cell–attached patches of isolated bovine coronary arterial smooth muscle cells, WX-III-287-19 did not alter activation of large-conductance, calcium-activated K+ channels. In U-46619-preconstricted rabbit aortic rings, WX-III-287-19 caused relaxation; however, relaxations were not observed in arteries preconstricted with either high K+ (60 mM) and phenylephrine (10−6 M). These results indicate that WX-III-287-19 is a potent coronary vasorelaxant and may act as a thromboxane receptor antagonist.

PRM40
THE IMPORTANCE AND USE OF DRUG UTILIZATION REVIEW AND PHARMACOECONOMICS
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During the development of society and the economy, the rapid growth of health care costs has become a burden on the worldwide health protection system. The problem of aging populations and a changing disease spectrum as well as the progress and change in health care technology, therefore, the health care costs increased. The major problem of many countries is how to use drug utilization review (DUR) and pharmacoeconomic evaluation to improve and optimize the configuration of medical and health resources. This paper presents the importance of drug utilization review and pharmacoeconomic evaluation and discusses the application of them in new drug research and development, drug pricing, the selection of NRDL, and promotion of generic drugs. The quality of reimbursement and pharmacoeconomic evaluation is critical. Furthermore, this paper analyzes problems and challenges of drug utilization review and pharmacoeconomic evaluation. Government departments, medical institutions, pharmaceutical companies, and research institutes should use them to solve their problems. Key words: Drug utilization review, Pharmacoeconomic evaluation, Pharmacoeconomics.

DISEASE-SPECIFIC STUDIES
CANCER - Clinical Outcomes Studies

PCN1
PREVALENCE OF FEBRILE NEUTROPEXIA IN BREAST CANCER PATIENTS RECEIVED ADJUVANT PACLITAXEL TREATMENT
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OBJECTIVES: To review prevalence and risk factors of febrile neutropenia in breast cancer patients received adjuvant paclitaxel treatment. METHODS: Retrospective chart review of 18 breast cancer patients received 146 cycles of adjuvant paclitaxel treatment. Prevalence of febrile neutropenia cases out of 18 patients who received 154 cycles of adjuvant paclitaxel treatment. Prevalence of febrile neutropenia in this study was 2.6%. Prevalence of febrile neutropenia in this study was 7.5% (11 cases out of 146 treatment cycles). Dosage regimen of paclitaxel (>100 mg/m^2/cycle) associated with neutropenia was found to be associated with neutropenia. Other common adverse events found in this study were peripheral neuropathy in 9 cases (50%), nausea in 7 cases (32.5%) and musculoskeletal 6 cases (25%). CONCLUSIONS: Neutropenia from higher dose (>100 mg/m^2) of paclitaxel was common and trend to associated with febrile neutropenia in breast cancer patients treated with this drug. Chemotherapy plus bevacizumab therapy is needed in the patients receiving higher paclitaxel dose to prevent febrile neutropenia during adjuvant paclitaxel treatment.

PCN2
PROSTATE CANCER OVERALL SURVIVAL: MULTILEVEL ANALYSIS OF A POPULATION-BASED CANCER REGISTRY DATA
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OBJECTIVES: Few studies have looked at the independent contribution that individual and contextual factors impact prostate cancer (PCa) survival. The aim is to investigate individual and contextual factors contributing to overall PCa survival in Florida. METHODS: In this study, a random sample of 6453 cases diagnosed with prostate cancer between 1/1/2001 and 12/31/2007 in the Florida Cancer Data System provided data to investigate individual and contextual factors contributing to overall PCa survival in Florida Cancer Data System. Multilevel analysis of hazard function of intervention or comparator reporting risk factors for PCa were included. Pre-specified outcomes included progression-free survival (PFS), overall survival (OS), objective response rate (ORR), quality of life (QoL) and adverse events. RESULTS: Six included analyses indicate that chemotherapy plus bevacizumab significantly prolonged progression-free survival (PFS) and overall survival (OS) and improved ORR, quality of life (QoL) and adverse events. CONCLUSIONS: The addition of bevacizumab significantly increases survival benefits and slightly leads to more adverse events. Due to higher cost of bevacizumab, it is not cost-effective therapy for mCRC patients. According to the potential considerable differences in economic status, epidermal growth factor receptor (EGFR) sensitivity and probability of included meta-analyses and cost-effectiveness analyses need to be taken into account. Analyses based on China local data should be processed in the future.

PCN4
SEQUENTIAL COMBINATION OF CHEMOTHERAPY WITH EGFR-TKI AS THE FIRST-LINE TREATMENT FOR UNSELECTED PATIENTS WITH ADVANCED NON-SMALL CELL LUNG CANCER: SYSTEMATIC REVIEW OF RANDOMIZED CONTROLLED TRIALS
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OBJECTIVES: This study assessed whether sequential treatment of chemotherapy with epidermal growth factor receptor-tyrosine kinase inhibitor (EGFR-TKI) versus chemotherapy alone as the first-line therapy improved treatment outcomes in patients with advanced lung cancer. METHODS: Randomized controlled trials (RCTs) were included in the analysis. The primary endpoint is overall survival (OS) and the secondary endpoints are progression-free survival (PFS), quality of life (QoL), objective response rate (ORR), time to treatment failure (TTF) and adverse events. RESULTS: Six included analyses indicated that the sequential therapy significantly increased OS (hazard ratio [HR] 0.79, 95% CI 0.72-0.86) and PFS (HR 0.80, 95% CI 0.73-0.88). CONCLUSIONS: Sequential therapy is an effective treatment option for patients with advanced NSCLC. Further research is needed to understand mechanisms in which individual and contextual factors impact PCa survival.

PCN5
A SYSTEMATIC LITERATURE REVIEW ON RISK FACTORS FOR CERVICAL CANCER IN CHINESE POPULATION
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OBJECTIVES: The main risk factors for cervical cancer (CC) cases is expected to increase from 42,000 and 187,000 in 2050. Previous meta-analysis reported gestational history and sexual behaviour as the main risk factors for CC in China. This study aims at updating these findings with a comprehensive systematic literature review. METHODS: The systematic literature review retrieved publications from MEDLINE, MEDLINE-IN-PROCESS and EMBASE, and three Chinese databases, CNKI, Wanfang Data and CQVIP, using PICOS framework. The target population was Chinese adolescent or adult females. All observational studies were included. Search