Canadian Agency for Drugs and Technologies in Health is funding initiatives such as the Canadian Platform To Increase Usage of Real-world Evidence (CAPTURE) project in which physicians collaborate on gathering RWID to inform and improve standard health care practices. Finally, some US hospitals are leveraging the RWID they generate to optimize clinical and economic outcomes for their populations. Additionally, US payers are funding comparative effectiveness studies in crowded markets with costly assets and generic competition. CONCLUSIONS: There is a need to monitor HTA agencies’ use of RWID to optimize access of the right treatments to the right patients. There is also a need to approach evidence generation in a systematic manner to differentiate assets beyond approval and initial F&R as well as to generate evidence only for those gaps that will impact health care decisions.

PHP112 EVIDENCE-BASED PRACTICE RECOMMENDATIONS: HEALTH QUALITY OVERVIEW FROM HQO’S APPROACH
Breuer SS, Nikitovic M, Chambers A, Ghazipura M, Schaink AK, Lamlinos AI, Levin L
Health Quality Ontario, Toronto, ON, Canada

OBJECTIVES: As part of the Ontario Government’s health system funding reform initiative, the Evidence Development and Standards division at Health Quality Ontario (HQO) was tasked with developing episodes of care consisting of evidence-based, best practice recommendations. The HQO clinical handbooks span both medical and surgical conditions, in acute care and community-based settings, and include between 25 and 100 recommendations each. The objective is to describe HQO’s methodology for developing evidence-based recommended best practices for episodes of care over the rapid timelines of the government mandated funding reforms. METHODS: Over a 1 year period, there was a total of 206 recommendations, which were developed for evidence-based prescribing; those criteria practiced were systematically and iteratively developed by HQO clinical epidemiologists in collaboration with methodologists, clinical experts and stakeholders, respectively. RESULTS: The resulting approach for applying evidence-based best practice recommendations included consideration of various evidence sources and consensus from expert panels which were formed for each of the clinical topics. Preference was given to evidence in space of Health Technology and Clinical Quality (HTCQ) guidelines and recommendations as these are developed using a decision-making framework that considers the clinical benefit offered by a health intervention, in addition to value for money, societal and ethical considerations; and economic and organizational feasibility. CONCLUSIONS: The HQO methodology did not exist, international guidelines were reviewed and selected based on their contextual relevance and assessment of their rigor of development using the AGREE II instrument. Uncertainty or conflict between the guidelines, or by the expert panel members, was addressed with systematic evaluations of the literature through rapid reviews and evidence-based analyses. CONCLUSIONS: While continually evolving to balance thoroughness and timeliness of evidence, HQO has developed a method of deriving episode of care recommendations as the practice set on an evidentiary base within a time-constrained government mandate.

HEALTH CARE USE & POLICY STUDIES – Patient Registries & Post-Marketing Studies

PHP113 PERCEIVED BENEFITS AND BARRIERS OF PAYER–MANUFACTURER POST–MARKETING OUTCOMES STUDY COLLABORATIONS
Olivey E1, Svolochak R2, Rosario C3, Malik S3
1NucleusX Market Access, Altanta, GA, USA, 2Recipient LLC, Somerville, NJ, USA

OBJECTIVES: To assess the currently perceived benefits and barriers of post-marketing payer collaborations funded by pharmaceutical manufacturers. METHODS: Regional and national US payers and pharmaceutical manufacturers with experience in collaborative post-marketing outcomes study endeavors were invited to participate in an hour-long telephone survey. The survey consisted of questions regarding their perceptions on the benefits and barriers of potential post-marketing outcomes study collaborations, as well as attributes of potential collaborators, studies, products or diseases that would be most highly valued. Descriptive statistics were used to characterize the survey responses. RESULTS: A total of 12 payers and four pharmaceutical manufacturer representatives participated in the survey. Payers most often mentioned that the greatest benefit to partnering with manufacturers was the value manufacturers bring in terms of expertise and resources (58%). Benefits manufacturers identified included demonstrating consistency in outcomes data relative to randomized clini trial data and effectiveness in real-world populations. The most commonly cited barriers by payers regarding participation in these post-marketing outcomes research collaborations included misaligned incentives (58%) and resource intensiveness (58%). The manufacturers felt that payers are generally wary of these types of collaborations due to possible perceptions of influence, and noted that payers are usually only willing to engage and focus on high-budget impact projects and collaborations. Payers’ most important consideration when selecting a pharmaceutical partner for outcomes studies was the willingness of the manufacturer to commit to long-term, standardized objectives (40%) and the alignment of the payer’s objectives with the manufacturer’s. CONCLUSIONS: As competition in the pharmaceutical marketplace increases and recent US health care reform moves forward, payer–manufacturer post-marketing outcomes research collaborations will be increasingly critical as a demonstration of value to all stakeholders.

PHP114 ARE PROMOTIONAL STRATEGIES OF LIFESTYLE DRUGS DIFFERENT FROM NON-LIFESTYLE DRUGS? A CONTENT ANALYSIS OF DTC PRINT MEDIA
Sahilbhai A1, Kapoor Avir A2, Nayak S1
1St. John’s University, Fresh Meadows, NY, USA, 2St. John’s University, Jamaica, NY, USA

OBJECTIVES: The objective of this study was to compare the promotional strategies of lifestyle drugs (LSD) vs. non-lifestyle drugs (NLSD) by content analyzing print advertisements. METHODS: 142 print advertisements were analyzed to see how LSD and NLSD ads differed with respect to rational appeals, emotional appeals and readability. Mann-Whitney U test was performed to compare the two, with respect to the type of promotional claims. Descriptive statistics were computed to summarize data pertaining to different ad features. The dataset was composed of 64 LSD advertisements and 78 NLSD advertisements. The categorical reliability was measured by Cohen’s Kappa for two raters and was found to be adequate for all the variables used in the instrument. RESULTS: Significant differences were observed between LSD and NLSD ads with respect to both emotional appeals (p < 0.000) and rational appeals (p = 0.000) based on Mann-Whitney U test. LSD ads focused more on emotional appeals while NLSD ads were heavy on rational content. A logistic regression analysis revealed likelihood estimates for ad claims appearing in the two groups. Feasibility calculated by Gunning-Fog Index for LSD’s was 8.84 and for NLSD’s was 11.56. Flasc-Hinchley grade for LSD and NLSD was found to be 7.65 and 10.73, respectively, indicating increased complexity of language in NLSD ads, which was mostly reflecting of the greater use of technical scientific language. CONCLUSIONS: The ads differed with respect to type of content, presentation, structure and complexity as well as promotional strategies adopted. Rational appeals were more predictive of NLSD ad type while emotional appeals were predominant in LSD ads.

PHP115 OPPORTUNITIES FOR THE FUTURE OF UNITED STATES MEDICAL DEVICE SURVEILLANCE: AN ANALYSIS OF THE JOINT REPLACEMENT REGISTRY (JRR) LANDSCAPE IN THE UNITED STATES
Pratt E1, Song KM, Mitchell K2
Avalere Health LLC, Washington, DC, USA

OBJECTIVES: Annually, over 1 million people in the U.S. undergo hip or knee replacement registries. Registries provide one mechanism to understand the benefits and risks of devices. The Joint Registry of Orthopaedic Surgery (JRR) has been considered for money; societal and ethical considerations; and economic and organizational feasibility. CONCLUSIONS: The JRR was ultimately not established, because international guidelines were reviewed and selected based on their contextual relevance and assessment of their rigor of development using the AGREE II instrument. Uncertainty or conflict between the guidelines, or by the expert panel members, was addressed with systematic evaluations of the literature through rapid reviews and evidence-based analyses. CONCLUSIONS: While continually evolving to balance thoroughness and timeliness of evidence, HQO has developed a method of deriving episode of care recommendations as the practice set on an evidentiary base within a time-constrained government mandate.

HEALTH CARE USE & POLICY STUDIES – Prescribing Behavior & Treatment Guidelines

PHP116 USE OF GLASSMANN ANTIMICROBIAL AUDIT TOOL (GAAT) TO ASSESS ANTIMICROBIAL USE IN THE ICSUS OF AN INDIAN PUBLIC TEACHING HOSPITAL
Gudapati BNS1, Tiwari P2, Gombar S3, D’cruz S4, Sachdev A4
1National Institute of Pharmaceutical Education and Research, Mohali, India, 2National Institute of Pharmaceutical Education and Research, NIPER, S.A Nagpur, India, 3Government Medical College & Hospital, Chandigarh, India, 4Government Medical College and Hospital, Chandigarh, India

OBJECTIVES: Continuous, indiscriminate and excessive use of antimicrobial agents leads to emergence of antimicrobial-resistant organisms. Antimicrobial resistance substantially raises health care costs and influences patient outcomes (morbidity & mortality). There is a dearth of data available on appropriateness of parenteral antimicrobial therapy in the ICSUs, especially in Indian settings. This study involves applying the GAAT criteria to assess the antimicrobial use. METHODS: This prospective observational study was carried out in the intensive care units of a public teaching hospital over a period of 12 weeks. All the relevant data was recorded in a pre-determined proforma and analyzed by two independent reviewers for first 7 days of ICU stay and the changes made in the treatment regimen were carefully evaluated. Parenteral antimicrobial therapy was assessed for appropriateness using GAAT criteria. Antimicrobial therapy was considered appropriate if two or more of the GAAT criteria were met. RESULTS: 85 ICU patient’s records were screened during the study period. Out of total 85 patients, 44 patients were male while remaining 41 were females. Of these, 74 patient records were found to have complete data for studying GAAT criteria. The parenteral antimicrobial therapy was found to be appropriate in 61 patients (82%), as per GAAT criteria. CONCLUSIONS: Parenteral antimicrobial therapy, as per GAAT, in this study was appropriate in 82% of the patients. This is a preliminary study, future large scale studies should be carried out over a longer period of time to draw any logical conclusion.
PHP117 FACTORS PREDICTING MEDICATION OVERSUPPLY IN THAILAND: A MIXED MODEL REGRESSION ANALYSIS
Dilokthornsakul P1, Chaiyapanukrap N2, Nimitpakpong P3, Jeenapeerong N1, Jampachaisri K4, Lee TA
1Center of Pharmaceutical Outcomes Research, Naresuan University, Muang, Phitsanulok, Thailand, 2Monash University Malaysia, Selangor, Malaysia, 3Buddhasi Charan Hospital, Muang, Thailand, 4Naresuan University, Muang, Phitsanulok, Thailand, 5University of Illinois at Chicago, Chicago, IL, USA
OBJECTIVES: Medication oversupply is an important problem which causes unnecessary avoidable health care costs. There are some studies determining magnitude and financial loss due to medication oversupply in western countries, they may not be applicable for Asia-pacific countries. This study aims to determine the prevalence, financial loss, and patterns of medication oversupply and factors associated with oversupply in Thailand. METHODS: A retrospective database analysis was conducted by collecting data from the records of 5 hospitals and receiving at least 2 prescriptions within 6 months were included. The modified medication possession ratio (MFMr) was used to determine the medication supply. Patients having MFMr≥1.20 were defined as medication oversupplied. The measures were presented as the number of patients having MPRm at least 2 prescriptions within 6 months were included. The modified medication insurance schemes, and number of medications the patients received were factors to consider. The financial loss (average $/patient/year) was highest average financial loss (2.6±23.2 $/patient/year). Age, gender, health insurance schemes, and number of medications the patients received were factors associated to medication oversupply was $189,024 per year. The average financial loss due to medication oversupply was $189,024 per year. The second highest prevalence of medication oversupply than patients in district hospital (13.8%) was 2.2 times lower than the prevalence of medication oversupply, the number of oversupplied medications, and age, gender, health insurance schemes, and number of medications the patients received were factors associated to medication oversupply. Amongst the countries referring Turkey, Russia, and S.Arabia are the most significant markets with their size and growing potentials. Additionally, Egypt, Macedonia, Morocco, Oman, and Iran refer Turkey. CONCLUSIONS: Although countries referring Turkey have large reference baskets, low Turkish prices could still be considered as a suppressing factor on prices in these countries. Furthermore, significant price changes especially in Russia and S.Arabia would possibly cause a second wave in some CIS and Middle East countries respectively, as they would adjust their prices within 6-12 months accordingly. Multinational companies considering this domino effect seriously and usually arrange launch sequencing to avoid inoperably-low-prices and secure the most-promise-markets. Consequently, innovative products’ price levels and availability might occasionally be affected negatively in Turkey and further in countries referring Turkey.

PHP118 TRENDS IN USE OF ECONOMIC EVIDENCE BY CLINICAL GUIDELINES
Acquaro C1, Boxall N2, Muser W2
1Academic Health Science Centre, University of Sheffield, Sheffield, UK and 2Department of Health Policy and Research, Tuft, Lyon, France, Stafmg, London, UK
OBJECTIVES: To analyse trends in the use of economic evidence for decision-making in clinical guidelines. METHODS: To understand trends in use of economic information we conducted targeted search for clinical guidelines, expert recommendations, and consensus statements with specific mention of “cost” or “economic” or related terms. A systematic literature search was undertaken for the databases Pubmed, Google Scholar and Cochrane. The guidelines published between 2003-2012 were included. For guidelines which met the search criteria, data was collected for the name of the author(s), institution, year of publication, country, region, and context of use of economic evidence. RESULTS: Sixteen clinical guidelines published between 2003-2012 met the inclusion criteria for specific mention of cost/economic evidence. The majority of guidelines included at least one reference to cost of disease or high economic burden as one of the considerations for developing new recommendations (11 out of 16). Another term that was commonly used by these guidelines was “cost-benefit,” which was mentioned 5 times in these guidelines. QALY was rarely mentioned (1 out of 16 times) in these guidelines. CONCLUSIONS: This analysis suggests that some clinical experts groups are increasingly showing willingness to use and incorporate health economic information for developing new recommendations.

HEALTH CARE USE & POLICY STUDIES – Quality of Care

PHP119 IMPACT OF BAR-CODE MEDICATION ADMINISTRATION (BCMA) ON PATIENTS’ SAFETY IN TAIWAN
Lee M
Taipei city, Taiwan
OBJECTIVES: To analyze the current usage of BCMA enforced by the pharmacists and nurses at a medical center in Taiwan, we collected data including of the overall system satisfaction, ratio of medication errors and phone calls for tracking stat drugs. METHODS: A 20-item overall system’s satisfaction questionnaire for nurses (n=89) and pharmacist (n=10) was designed by 8 experts using content validity index (CVI). We have collected medication error ratio for one year in order to evaluate patients’ safety before and after using BCMA system. We also collected the numbers of phone calls and total drug usage analysis for 1 year. RESULTS: During October 2010 to September 2011 in our hospital by pharmacists’ satisfaction questionnaire, they agree BCMA system can help them recognize drugs (60%), reduce medication errors (53%) and check drug delivery (90%). But they also think the BCMA has increased workload (57%) in nurses’ satisfaction questionnaire, they agree BCMA system can help them increase case data’s integ-

PHP120 EXTERNAL REFERENCE PRICING (ERP) IN TURKEY AND ITS EFFECTS ON THE PRICE OF DRUGS THAT REFER TO IT
Deep C, Ozdemir A2, Sumrer F, Pasali E, Yilmaz Z, Tunalioglu A, Ustunel B, Ozel MO
Bayer Turk Kimya San. Ltd. Sti., Istanbul, Turkey
OBJECTIVES: ERP is the practice of using pharmaceutical prices in several countries as a price benchmark in a given country and could be used as the main criteria for pricing decisions. Since 2004 this analysis aims to elaborate the Turkish ERP system with its effects on the countries referring Turkey. METHODS: ERP systems of Turkey and countries referring Turkey have been analyzed. RESULTS: Turkish reference basket is composed of Greece, Ireland and Portugal, whose prices are relatively lower than the European-average, plus import and manufacturer countries of the product. Lowest basket price sets the price-ceiling for reimbursed products, while highest can be taken for non-reimbursed products. Reference prices are subject to an exchange rate, fixed by Ministry of Health at approximately 40% below the actual rate. Consequently, Turkish prices are almost 44% of the lowest-priced European countries. CONCLUSION: Considering the ERP system in Turkey was implemented when the exchange rate was approximately 40% below the actual rate, the lower prices in Turkey and using reference baskets could make Turkish products more competitive. Turkey should consider other countries’ practices to develop its own ERP system which would be well-suited to their economic conditions. Ankara, Turkey

PHP121 DESCRIPTIVE REVIEW OF THE PHARMACOVIGILANCE AND RISK ASSESSMENT COMMITTEE (PRAC) ACTIVITIES SINCE ITS ESTABLISHMENT
Acquaro C, Boxall N, Muser W
Academic Health Science Centre, University of Sheffield, Sheffield, UK
OBJECTIVES: To review PRAC’s activities to date. METHODS: Meetings minutes since July 2012 were retrieved from the EMA website. The PRAC received questions attributed to seven categories: EU reference questions, EU guidance, assessment reports, risk management plans (RMPs), assessment of periodic safety update reports (PSURs), post-authorisation safety studies (PASS), product-related pharmacovigilance inspections, and other safety issues for discussion requested by the Committee for Medicinal Products for Human Use (CHMP) or Member States (MS). RESULTS: There were 13 meeting minutes available (July 2012 – October 2013), containing 1077 questions/requests with/without a formal decision-making phase [149 (13.9%) in 2012, 928 (86.2%) in 2013]. Three request types comprised nearly 80% (n=860): signal assessment and prioritization [n=140 (13%), 50 (4.7%) in 2012, 90 (8.4%) in 2013], RMPs [n=416 (38.7%), 48 (4.5%) in 2012, 368 (34.2%) in 2013], and PSURs [n=304 (28.2%), 20 (1.8%) in 2012, 284 (26.4%) in 2013]. PRAC outputs were recommendations or advice. In 2012, there were 46 recommendations for 35 new signal assessments requests. Recommendations regarding new signals were made either to the Marketing Authorization Holder (MAH) (n=2) (e.g., submit a cumulative review of dermatomycoses within 30 days), the EMA (n=40) (e.g., review cases of dermatomycoses and report back), the PRAC rapporteur (n=7) (e.g., assess the UK cases in the ongoing PSUR procedure) or the MS (n=1) (e.g., UK to provide a report on the nicotinic receptor mutation). CONCLUSIONS: After an initial “running in period,” the PRAC appears to be fulfilling its mandate. PRAC operations should be evaluated in terms of success (i.e., impact of decisions).

PHP122 THE HISTORICAL EVOLUTION OF CHINA’S DRUG REGULATORY SYSTEM
Li H, Sun H
Tianjin University, Tianjin, China
OBJECTIVES: This article makes a review on the historical evolution of China’s drug regulatory system and provides some reflections and policy implications for the reform of the present system. METHODS: This study is based on literature review and a survey of key experts to identify key events and eras by web pages of Chinese government on the internet. RESULTS: China’s drug regulatory system has experienced complicated process of evolution. During the period of planned economy China had no independent drug regulatory system. The way to control the quality and safety of pharmaceutical products was to take full control of every