as a non-prescription drug in all but two states. The purpose of this project was to assess the relationship between PSE sales and indicators of methamphetamine supply, especially the number of clandestine laboratory incidents reported, in Kentucky. METHODS: We calculate regression models predicting clandestine methamphetamine lab incidents using 2010 county level Kentucky data. Explanatory factors include PSE sales (in grams), methamphetamine-related hospitalizations, crime scene diagnostic tests for controlled substances, and population. Data sources include the Kentucky All Schedule Prescription Electronic Reporting Program, the Kentucky Inpatient Discharge Data Set, the Kentucky State Police Crime in Kentucky Report, and Clandestine Laboratory Surveillance System. RESULTS: Results indicate a strong association between PSE sales and clandestine labs (p < 0.01). Methamphetamine related hospitalizations have a positive relationship to labs (p < 0.01). Methamphetamine related arrests have a negative relationship to labs (p < 0.05). CONCLUSIONS: PSE sales have a strong relationship to clandestine labs, with greater sales of PSE leading to a greater number of clandestine labs. Our findings have important policy implications as states struggle with policy options to reduce methamphetamine abuse. Tighter restrictions on PSE may be justified as a means to reduce clandestine methamphetamine labs.

Dr3

Establishment of an Innovative Collaborative Between the Drug Safety and Effectiveness Network in Canada and ISPOR for Application and Development of Network Meta-Analysis

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OBJECTIVES: The Drug Safety and Effectiveness Network (DSEN) in Canada was created in response for more evidence on ‘real world’ drug safety and effectiveness in the post-market phase. The goal of the Network Meta-Analysis (NMA) Collaborative was to establish within DSEN an innovative partnership of health methodology experts from the health care system and patient partners and organizations such as ISPOR that are actively involved in health research. METHODS: A proposal was developed and submitted to the Canadian Institutes of Health Research (CIHR) for establishing a Collaborative for providing rapid response to specific queries by utilizing network meta-analysis and safety and effectiveness systematic reviews; providing a proactive platform for the development and application of innovative, sophisticated, leading edge analytical methods for NMA and safety and effectiveness research; developing novel knowledge translation strategies that fill gaps in knowledge required by end-users to make evidence-based decisions about drug safety and effectiveness that are based on NMA; establishing practical and interactive training and mentorship opportunities for trainees through international links with partners specializing in drug safety and effectiveness research. RESULTS: The proposal was peer-reviewed at CIHR for responding to safety and effectiveness using NMA, developing innovative NMA techniques, translating knowledge and building capacity. The proposal was successful and funding was allocated. The demonstration project awarded was evaluating co-anticoagulants compared to low molecular weight heparin in preventing stroke and other cardiovascular events in patients with atrial fibrillation. CONCLUSIONS: The infrastructure for the Collaborative will permit safety and effectiveness reviews involving NMA to be conducted and innovative methods developed. The first report completed on new oral anti-coagulants incorporated leading edge translation strategies that fill gaps in knowledge required by end-users to make evidence-based decisions about drug safety and effectiveness that are based on NMA; establishing practical and interactive training and mentorship opportunities for trainees through international links with partners specializing in drug safety and effectiveness research.

Dr4

Clarity, Consistency and Transparency in Decision-Making: Testing a Novel P&T Framework for Assessing Evidence

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OBJECTIVES: To test a more uniformly structured approach to evaluating evidence for formulary decisions among managed care decision makers. METHODS: A structured framework assessing the impact of costs, efficacy benefits, safety concerns, and certainty of efficacy and safety evidence on formulary access was tested using four hypothetical clinical conditions (breast cancer, osteoporosis, Alzheimer’s disease, and hypertension). After recruitment from a convenience sample, respondents were assigned via balanced randomization to rate 12 scenarios per clinical condition on a 1-9 scale (1 = no access, 9 = open access). Distribution of ratings, means, medians, and rate of disagreement was calculated. Mixed effects linear regression models using maximum likelihood, with rater as a random effect, were fit to estimate the association of clinical condition, cost, efficacy certainty, safety certainty, efficacy benefit, and safety concerns with level of formulary access. RESULTS: Seventy-nine P&T decision-makers completed the survey between February-October 2011 resulting in 3783 evaluable responses (2823 = pharmacy directors, 960 = medical directors). Mean ratings were lower among pharmacy directors vs. medical directors (3.92 vs. 4.36, p = 0.013). Adjusted formulary access ratings differed by clinical condition (breast cancer 4.40, osteoporosis 4.04, Alzheimer’s 4.00, and hypertension 3.70). Individual raters had substantial disagreement in individual scenario ratings (MAD 0.25-2.19). Across all conditions, greater formulary access was significantly associated with greater certainty of efficacy (p < 0.01), greater certainty of safety (p < 0.07), greater magnitude of efficacy benefit (p < 0.03), fewer safety concerns (p < 0.22) and lower comparative cost (p < 0.54). CONCLUSIONS: Greater formulary access was associated with greater efficacy benefit, certainty of efficacy and safety evidence, lower costs, and fewer safety concerns. Despite substantial inter-rater variation within each scenario, the structure of the framework held during testing with a broad number of P&T decision-makers, suggesting a more structured approach may result in greater clarity and transparency in formulary decision-making.

Podium Session II:

Medication Adherence & Health Care

MA1

Medication Adherence and Persistence of Prasugrel Initiators Post-ACS PCI

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OBJECTIVES: To evaluate medication adherence and persistence in patients with acute coronary syndromes (ACS) who initiated prasugrel following a percutaneous coronary intervention (PCI). METHODS: We identified patients with a ≥15-day gap to the first dispensed prescription of prasugrel following discharge from an ACS-PCI procedure in the MarketScan® Research Health Plan Database. PATIENTS: Study population included 6651 patients with a diagnosis of ACS-PCI (ICD-9-CM: 410.2-410.4, 411.4). RESULTS: 59% of patients had ≥12 months of continuous post-discharge persistence. Predictors of adherence ≥80%, calculated using the medication possession ratio (MPR) during the 12-month follow-up period, were identified using a logistic regression model. Persistence was assessed with survival analysis techniques and a 15-day gap to the first post-discharge exposure was used to define the model predicted initiators of prasugrel discontinuation. RESULTS: The cohort was composed of 1340 patients with a mean age of 56.3 years; 75.9% were male. The average MPR was 0.79 and nearly 70% of patients had adherence ≥80%. Patients with prior statin use had higher odds of adherence (OR: 1.59, 95% CI: 1.22-2.09). CONCLUSIONS: Adherence was associated with lower total non-IFX health-care costs. Comparison of adherent vs. intermittently adherent patients may provide a conservative test of the effect of adherence since patients that were intermittently adherent may have some IFX exposure.

MA2

Comparison of Health Care Costs for Crohn’s Disease Patients Who Are Adherent Versus Intermittently Adherent with Infliximab Therapy

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OBJECTIVES: Adherence comparisons of biologic agents used to treat Crohn’s disease (CD) have typically compared adherent and non-adherent patients. Non-adherence may be due to efficacy, tolerability, lack of follow-up or patient-centered reasons. There is a need for a more in-depth examination of non-adherence. Purpose was to compare healthcare costs of CD patients who were intermittently adherent with infliximab (IFX) therapy. METHODS: Patients with ≥1 claims for IFX initiated between 1/1/2006-12/31/2008 who had ≥2 diagnosed cases of CD (ICD-9-CM: 555.XX) during the pre-index period were identified from Thomson Reuters MarketScan® Databases. Patients had to be ≥18 years, continuously enrolled for 12 months before and after IFX initiation, and had no prior use of IFX during 360-days pre-index. Patients with prior biologic therapy or rheumatoid arthritis (ICD-9-CM: 714.XX) were excluded. Adherence was classified as having a medication possession ratio (MPR) of ≥80%; intermittently adherent group had an MPR <80% with IFX claims spanning 90% or more of the observation period. Differences between the adherent and intermittently adherent groups were assessed using propensity-weighted and via balanced independent samples t-test. RESULTS: A total of 643 patients were identified (360 adherent; 239 intermittently adherent) with a mean (SD) age of 42.9 (15.5) years; 50.9% were female. Propensity-weighted mean total health care costs excluding IFX were $13,097 vs. $20,068 (P < 0.001) for the adherent vs. intermittently adherent groups. Mean all-cause component costs were $2,764 vs. $6,665 (P < 0.001) for hospitalizations, and $7,300 vs. $13,343 (P < 0.001) for outpatient visits among the adherent vs. intermittently adherent groups, respectively; no significant cost differences were observed in ER visits, other prescription or total costs (component + IFX). CONCLUSIONS: Adherence was associated with lower total non-IFX health-care costs. Comparison of adherent vs. intermittently adherent patients may provide a conservative test of the effect of adherence since patients who were intermittently adherent have some IFX exposure.