that adjunctive treatment with aripiprazole provides health benefits compared to quetiapine and olanzapine in patients with MDD that fail to respond to conventional antidepressants. With country-specific cost-data, this model is also suited to assess the cost-effectiveness of different adjunctive strategies in MDD in different countries.

**PMH12**

THE COMPARATIVE EFFICACY OF INJECTABLE AND ORAL ATYPICAL ANTIPSYCHOTICS IN REDUCING RELAPSES IN ADULT SCHIZOPHRENIA PATIENTS: A SYSTEMATIC REVIEW AND MIXED TREATMENT COMPARISON ANALYSIS

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OBJECTIVES: To compare injectable and oral atypical antipsychotics in reducing relapses in adult schizophrenia patients. METHODS: A systematic review of literature was conducted in MEDLINE and EMBASE (January 1993-August 2009) to identify randomized controlled trials and comparative open-label studies of atypical antipsychotics performed on adult schizophrenia outpatients. Proceedings of the American Psychiatric Association Conference from 2006 to 2009 and bibliographies of identified studies and relevant reviews were also searched. Included studies had to have a clear definition of relapse (e.g. hospitalization or return to symptomatic condition), and a minimum follow-up period of 6 months. Comparators included atypical antipsychotics, typical antipsychotics, or placebo. Data extraction was validated by a second reviewer. A Bayesian mixed treatment comparison (MTC), enabling indirect comparisons while respecting randomization, was performed on the rate of relapse. RESULTS: Ten articles were identified and included in the systematic review and MTC. The odds ratio (OR) [95% credible interval (CI)] of relapse relative to placebo ranged from 0.13 [0.04, 0.47] (oral risperidone), 0.20 [0.09, 0.43] (FGAs), 0.25 [0.12, 0.46] (atypical) and 0.29 [0.12, 1.12] for typical agent haloperidol. The OR [95% CI] of relapse of injectible risperidone relative to oral formulations of atypical antipsychotics ranged from 0.28 [0.05, 1.24] (aripiprazole) to 0.81 [0.12, 1.01] (olanzapine). Injectable risperidone had lower odds of relapse than donepezil, olanzapine, quetiapine, aripiprazole, combination therapy, haloperidol, and placebo with probabilities > 95% and quetiapine XR, clozapine, and ziprasidone with probabilities of 85%, 90%, and 93%, respectively. Findings were robust to varying trial duration and responders definitions. CONCLUSIONS: Various atypical antipsychotics, as well as typical haloperidol, offer similar benefits over placebo in reducing relapse rates. Statistical and clinically important differences in relapse rates exist between oral and injectable for- merly used antipsychotics.

**PMH13**

CHARACTERISTICS AND COST OUTCOMES OF INSURED PATIENTS TREATED WITH EXTENDED-RELEASE NALTREXONE (XR-NTX) OR ORAL ALCOHOL DEPENDENCE MEDICATIONS

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OBJECTIVES: There are four FDA-approved alcoholism medications: disulfiram, naltrexone, acamprosate, and extended-release naltrexone (XR-NTX). This study used observational data to evaluate the utilization and cost outcomes of insured patients treated with XR-NTX compared to oral medications (n=8,230). METHODS: This study used data from TRU-PFM (Thomson Reuters’ MarketScan Commercial insurance claims database which contains information from millions of enrollees annually. Outcomes were measured six months after index and included medication possession ratio (MPR), detoxification admissions and readmissions, detoxification days and days to visits, psychiatric and substance abuse outpatient visits and charges for detoxification and alcohol-related inpatient stays. Two sets of analyses were conducted: 1) Patients with an alcohol use disorder and no use of any alcohol medication (n=4,047) were compared to persons with an alcohol use disorder and use of any of the four medications (n=4,730). The samples were propensity-score matched on demographics, clinical characteristics and prior use of alcohol and psychiatric services, and 2) The four medications were compared (XR-NTX n=275; naltrexone n=2064 acamprosate n=3068; disulfiram n=2076) using inverse probability weighting. RESULTS: The probability of any detoxification admission, alcohol-related admission, and ED visit and a substance abuse or psychiatric inpatient stay was significantly higher among medication users than medications users. XR-naltrexone users had a significantly higher MPR than acamprosate users. Patients using any medication had fewer detoxification days and alcohol-related inpatient days. Conclusions: Individuals receiving alcoholism medications had significantly lower detoxification costs (per 1000 patients over 6 months) versus oral naltrexone, disulfiram and acamprosate (Detrois: $0.60-million vs. $1.48-million, $1.08-million, $1.40-million, respectively; P < 0.01 for XR-NTX vs. naltrexone and acamprosate). CONCLUSIONS: Individuals receiving alcoholism medications had significantly lower detoxification costs and hospitalization utilization rates than similar patients who received no medication. Of the approved medications, XR-NTX had lower costs for detoxification and alcoholism hospitalization days.

**PMH14**

ALL-CAUSE TREATMENT DISCONTINUATION FOR OLANZAPINE COMPARED TO OTHER ANTIPSYCHOTICS IN THE TREATMENT OF SCHIZOPHRENIA: A META-ANALYSIS

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OBJECTIVES: Treatment discontinuation has been increasingly used as a quantifiable tool for measuring the overall effectiveness of antipsychotic medications in terms of efficacy, safety, and tolerability of a drug. While results have been inconsistent, several studies have found that olanzapine and other second-generation antipsychotics (SGA) are more effective in the treatment of schizophrenia compared to first-generation antipsychotics (FGA). This meta-analysis compared time to and rate of treatment discontinuation of antipsychotics in schizophrenia. METHODS: Electronic search strategies identified all relevant papers on the topic published up to April 2009. Randomized controlled trials (RCTs) and observational studies that compared olanzapine with SGAs and/or FGAs for patients with schizophrenia were included in the meta-analyses. Hazard ratios (HR), Relative Risks (RR) and their associated 95% confidence intervals (CIs) were extracted. RESULTS: There were 60 RCTs (N=33,360) and 27 observational studies (N=202,591) included. The meta-analysis of time to discontinuation revealed that olanzapine was significantly better compared to aripiprazole, quetiapine, risperidone, ziprasidone, and perphenazine within ran-domized trials and better than amisulpride, risperidone, haloperidol, and perphenazine within observational studies. Discontinuation rates in the RCTs were significantly lower for olanzapine compared to all antipsychotics except for clozapine. In the observational studies, olanzapine was more effective than amisulpride, olanzapine and perphenazine, better than clozapine, haloperidol, and less effective than clozapine. Subgroup analysis indicated that industry spon-sorship (Lilly vs. other sources) and olanzapine dosages did not affect the results, except for observational studies published by companies other than Lilly which found olanzapine to be more favorable compared to FGAs. CONCLUSIONS: In both randomized trials and observational studies, time to and rates of discontinuation, which are overall indices of effectiveness, olanzapine was better than most SGAs and FGAs, except for clozapine.

**PMH15**

PREDICTORS OF FAVORABLE LONG-TERM OUTCOME IN THE TREATMENT OF SCHIZOPHRENIA

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OBJECTIVES: This study aimed to identify schizophrenia patients who experience favorable outcomes over a 3-year period and determine baseline predictors of favorable long-term outcomes. METHODS: This study was a retrospective cohort analysis of a 3-year 3-year prospective, observa-tional study of individuals treated for schizophrenia in the United States (US-SCAP; N=2327). A hierarchical cluster analysis was performed to group patients, using baseline clinical, functional, and resource utilization measures. Clinical status was based on symptom severity, functional level reflected patient-reported productivity and occupational role functioning. Resource utilization of psychiatric hospitalization and emergency services was systematically abstracted from medical records. A patient was classified as having a favorable long term outcome if their outcome values had the closest distance to the defined “best baseline cluster” at each point over the 3-year follow-up, stepwise logistic regression was used to determine baseline predictors. RESULTS: Of 1604 patients with sufficient data to assess 3-year outcomes, only 191 (12%) experienced favorable outcomes. Overall, 5 distinct outcome clusters were identified, ranging from best to worst. The baseline predictors of the most favorable outcomes sustained over the 3-year period included better quality of life, more daily activities, patient-reported clearer thinking, less severe positive symptoms, lower AIMS score, higher level of global functioning, being employed, not having health insurance, being female, and not having help with shopping, leisure, or social activities. CONCLUSIONS: This study identified 5 distinct clusters of patients with schizophrenia based on their baseline clinical, functional, and resource utilization factors. Current findings suggest that clinicians could make early projections of long-term outcome, thus enabling early tailored therapeutic interventions that could enhance patient’s likelihood of achieving more favorable long-term outcomes.

**PMH16**

THE COMPARATIVE EFFICACY AND SAFETY OF ADJUNCTIVE ANTIPLATFORMICS IN MAJOR DEPRESSIVE DISORDER PATIENTS THAT FAILED TO Respond to CONVENTIONAL ANTIDEPRESSANTS

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OBJECTIVES: Augmentation with atypical antipsychotics are effective in treating patients suffering from major depressive disorder (MDD) and that respond insuffi-ciently to conventional antidepressants. Direct head-to-head trials comparing these agents are lacking. An indirect comparison was conducted to assess the comparative efficacy and safety of augmentation with atypical antipsychotics in MDD. METHODS: A systematic literature search was conducted of Medline/PubMed (1966-September 2009). Eligible trials enrolled patients diagnosed with unipolar depression and compared three classes of antipsychotics (haloperidol, clozapine, and olanzapine) to aripiprazole, quetiapine, risperidone, ziprasidone, and perphenazine within randomized controlled trials and observational studies, time to and rates of discontinuation, which are overall indices of effectiveness, olanzapine was better than most SGAs and FGAs, except for clozapine.

**Abstracts**
Abstracts

PMH17 OUTCOME TRAJECTORIES IN THE LONG-TERM TREATMENT OF SCHIZOPHRENIA

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OBJECTIVES: This study aimed to determine distinct subgroups of schizophrenia patients based on their illness severity at baseline and characterize those who were most improved and those who were worst improved. METHODS: We used data from a large 3-year prospective, multi-site, observational non-interventional study of individuals treated for schizophrenia in the United States (US-SCAP). A hierarchical cluster analysis was used to group the patients, using baseline clinical, functional, and resource utilization measures. Improvement of outcome was determined based on the distance from the defined “worst baseline cluster” for each post-baseline measure. A trajectory analysis was used to group patients by improvement of outcome over the 3-year study. RESULTS: Almost all participants (99% or 872/880) with 3-year data were found in a single outcomes trajectory, characterized by minimal changes from baseline cluster over the 3-year study period. Approximately one-fourth of individuals moved to a better outcome cluster while about 17% moved to a worse outcome cluster at each year. Only 4% of patients moved from the worst/near to worst cluster to the best/near to best cluster and 16.6% moved from the best/near to best cluster to the worst/near to worst cluster. Most improved patients were more likely than all other patients to have case management, to live in a supervised housing arrangement, and get assistance with securing social services and benefits. CONCLUSIONS: The long-term outcome trajectory for almost all schizophrenia patients in this 3-year naturalistic observational study was stable, devoid of change from the baseline cluster. Only a very small subgroup of patients experienced marked improvements, and they were more likely to be engaged in psychosocial rehabilitation. Although current findings may affirm the value of psychosocial rehabilitation, results highlight the need to improve the relatively stagnant long-term illness trajectory of almost all chronically ill patients with schizophrenia.

PMH18 TREATMENT PATTERNS IN ATTENTION-DEFICIT/HYPERACTIVITY DISORDER: ANALYSES WITH THE RAMQ DATABASE

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OBJECTIVES: Approved treatments for attention-deficit/hyperactivity disorder (ADHD) in Canada comprise short-acting (SA) and long-acting (LA) stimulants and a LA nonstimulant medication. The objective of this study was to elucidate different drug treatment patterns to treat ADHD in Canada. METHODS: The analysis was performed in accordance with the rules of systematic review, based on Cochrane Collaboration guidelines and recommendations of Health Technology Assessment Agency in Poland (AOTM). RESULTS: This report there were two subanalyses conducted, evaluating the efficacy and safety of escitalopram in comparison with sertraline and venlafaxine in treatment of patients with MDD. The clinical-effectiveness analysis ascertained equivalence of efficacy and similarity of safety profile of escitalopram in comparison with sertraline and venlafaxine in therapy of patients with MDD.

PMH19 COMPARATIVE ANALYSIS OF THE EFFICACY AND SAFETY OF ESCITALOPRAM WITH SERTRALINE AND VENLAFAXINE IN THE TREATMENT OF MAJOR DEPRESSIVE DISORDER (MDD)

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OBJECTIVES: The purpose of the review was to evaluate the efficacy and safety of escitalopram compared with sertraline and venlafaxine in treatment of major depressive disorder (MDD). METHODS: The analysis was performed in accordance with the rules of systematic review, based on Cochrane Collaboration guidelines and recommendations of Health Technology Assessment Agency in Poland (AOTM). RESULTS: In this report there were two subanalyses conducted, evaluating the efficacy and safety of escitalopram in comparison with sertraline and venlafaxine. CONCLUSIONS: Escitalopram seems to be equally efficient and safe drug as sertraline and venlafaxine in treatment of patients with MDD. The clinical-effectiveness analysis ascertained equivalence of efficacy and similarity of safety profile of escitalopram in comparison with sertraline and venlafaxine in therapy of patients with MDD.

PMH20 USE OF A LINKED HOSPITAL ADMISSIONS AND HEALTH CARE CLAIMS DATABASE IN PHARMACOLOGICAL OUTCOMES RESEARCH: STUDY OF A FEASIBILITY AND EXAMINATION OF TREATMENT OF SCHIZOPHRENIA WITH ATYPIAL ANTI-PYSCHOTICS

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OBJECTIVES: We conducted a cross-sectional study using linked health care claims databases from large U.S. health care claims data bases, periods during which patients were hospitalized have constituted “black holes”, as these databases do not contain any information on pharmacotherapy received in hospital. While admission-level databases provide such information, they lack information on pharmacotherapy received outside of hospital. METHODS: Using a linked inpatient/outpatient database, we identified all adults with ≥21 admissions for schizophrenia between January 1, 2001 and September 30, 2008. Focusing on each patient’s first admission, we compiled all health care claims during the 6-month periods preceding and following hospitalization. As our interest was in the use of SGAs, our scope was limited to patients with evidence of receipt of oral aripiprazole, aripiprazole, or quetiapine (“study agents”) immediately preceding hospital discharge. We then examined receipt of these agents during the 6-month periods preceding hospitalization and following hospital discharge based on outpatient pharmacy claims in hospital was examined using admission-level data. Adherence with study agents following hospital discharge was assessed using proportion of days covered (PDC); patients were deemed nonadherent if PDC fell below 80%. RESULTS: A total of 43 patients were identified who met all study entry criteria. Twenty-four patients (56%) had evidence of receipt of a study agent in the period preceding hospitalization. While all patients had evidence of receipt of study agents following hospital discharge, only 12% were adherent at 6 months. CONCLUSIONS: Linked inpatient/outpatient databases are a promising avenue for future pharmaceutical outcomes research, as they may greatly expand understanding of the complete chronology of pharmacotherapy–and associated outcomes–for many disease conditions.

PMH21 PREVALENCE AND PREDICTORS OF ANTICHOLINERGIC MEDICATION USE IN ELDERLY NURSING HOME RESIDENTS WITH DEMENTIA

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OBJECTIVES: To examine prevalence and predictors of anticholinergic medication use in elderly nursing home residents with dementia. METHODS: The study evaluated anticholinergic medication use in elderly (≥ 65 years) nursing home residents using the 2004 National Nursing Home Survey (NNHS). Anticholinergic Drug Scale was used to classify medications as Level 1, Level 2 or Level 3 in regard to their implications for patient care and the efficient use of health care resources. Supported by funding from Shire Develop-

PMH22