

dian=8.00) at baseline. Results differed according to countries, with a mean of 12.13 (SD=5.17, Median=11.00) in France, 9.32 (SD=4.17, Median=8.00) in Germany and 8.00 (SD=3.89, Median=7.00) in UK. About 30% of those identified at baseline still had CD at 6, 12, 18 and 24 months. Patients with CD were found to have more severe symptoms (PANSS 67.7 vs. 42.5  $p<0.0001$ ), a lower QoL (EQ-5D index score: 0.71 vs. 0.77  $p<0.001$ ), lower functioning (GAF: 45.9 vs. 59.0  $p<0.001$ ), more severe side effects (SSES: 0.74 vs. 0.66  $p=0.03$ ) and to be more depressed (CDSS: 3.09 vs. 2.55  $p=0.001$ ). Results were consistent within countries. **CONCLUSIONS:** Our study suggests that patients with CD form a stable population overtime with higher clinical burden. Research on the cognitive impairment of schizophrenia is of key importance in schizophrenia, more so even than positive or negative symptoms.

#### PMH10

##### FUNCTIONAL OUTCOME MEASURES: A POWERFUL TOOL TO DEMONSTRATE TREATMENT SUCCESS IN SCHIZOPHRENIA

Chung D, Guan Q, Rizzo M

Double Helix Consulting Group, New York, NY, USA

**OBJECTIVES:** Most antipsychotics were developed with the goal of addressing psychopathology symptoms and maintaining the stability of patients. With the number of antipsychotics in the market, a paradigm shift instead of therapy evolution will be the key to product success. Maintenance therapy will be inadequate and new antipsychotics will have to demonstrate improvement in symptom remissions and recovery, which can be validated by the ability to live and function independently. The objective of this study is to evaluate similarities and differences between instruments that assess functional outcomes, to evaluate functional outcome endpoints validated by newer atypicals and to understand how these endpoints increase the value perception of a new antipsychotic. **METHODS:** An online literature search was conducted to identify instruments and functional domains measured. Current atypicals were evaluated for functional endpoint studies measured. Primary research was conducted with five payers from plans with managed Medicaid to understand how functional outcome measures influence their value perception. **RESULTS:** Twelve different instruments were cross analyzed for eighteen functional domain measurements. Our analysis show that the most common functional domains measured are ability to form extended social relationships ( $n=92\%$ ), self-care ( $n=75\%$ ), and occupational improvement ( $n=67\%$ ) while only two instruments measured life satisfaction, vitality, communication, recreation, and public safety. Among the current atypicals, paliperidone included functional outcome endpoints using the PSP scale to demonstrate efficacy. Payers interviewed also stated that demonstrating functional improvements and ability to translate this to daily living would be a key factor in justifying value and obtaining favorable access for new antipsychotics. **CONCLUSIONS:** With a variety of instruments available and the vast combination of possible functional domain endpoints that can be measured, choosing an instrument that is objective, reliable, easily administered and simple but comprehensive enough to measure impact in daily function would be a powerful tool to demonstrate successful treatment.

#### PMH11

##### COMPARISON OF TIME TO RELAPSE BETWEEN MONOTHERAPY AND POLYPHARMACY USING LATENT VARIABLE MODEL BASED ON OBSERVATIONAL DATA IN SCHIZOPHRENIA

Vimont A<sup>1</sup>, Aballea S<sup>1</sup>, Kouki M<sup>1</sup>, Millier A<sup>1</sup>, Toumi M<sup>2</sup>

<sup>1</sup>Creativ-Ceutical, Paris, France, <sup>2</sup>University Claude Bernard Lyon1, Lyon, France

**OBJECTIVES:** Antipsychotic polypharmacy is frequently used in schizophrenia although the incremental effect for relapse prevention is uncertain. The purpose of this study is to compare risks of relapse between polypharmacy and monotherapy based on an observational study. Propensity score matching (PSM) and a latent variable model (LVM) were used to correct for selection bias. **METHODS:** Analyses were based on data from a multinational prospective cohort study that enrolled 1208 patients, followed over 2 years (EuroSC). The effect of treatment (combination therapy vs. monotherapy) on the risk of relapse was estimated using Cox models. PSM was used to create two comparable groups of patients. Propensity scores were derived from 11 variables measuring disease severity, quality of life, depression and functioning at baseline. A LVM was used to account for bias related to unmeasured confounding factors. It consisted of two parts estimated simultaneously: a logistic model predicting treatment choice and a Cox model on time to relapse. The model assumed that an unmeasured factor affecting risk of relapse was taken into account in the choice of treatment. All analyses were performed in a Bayesian framework, using WinBugs. **RESULTS:** Matched groups each included 344 patients, with relapse rates of 51% for monotherapy and 59% for polypharmacy. The hazard ratio for relapse with monotherapy versus polypharmacy was 0.77 (95% CI: 0.63, 0.94) based on the simple Cox model and 1.34 (0.87, 2.39) based on LVM. The LVM was better according to the Deviance Information Criterion. **CONCLUSIONS:** Results of the LVM suggest that polypharmacy is associated with a reduced risk of relapse, and contradict results based on PSM ignoring bias related to unmeasured confounding factors. The LVM appears to be a useful method to detect unmeasured confounding. Further research on the specification of latent variables is recommended to accurately quantify treatment effects.

#### PMH12

##### NATIONAL TRENDS OF PSYCHOTROPIC MEDICATION USE AMONG PATIENTS DIAGNOSED WITH ANXIETY DISORDERS: RESULTS FROM THE MEDICAL EXPENDITURE PANEL SURVEY 2004-2009

Wu CH<sup>1</sup>, Wang CC<sup>2</sup>, Katz AJ<sup>1</sup>, Farley J<sup>1</sup>

<sup>1</sup>The University of North Carolina at Chapel Hill, Chapel Hill, NC, USA, <sup>2</sup>RTI Health Solutions, RTP, NC, USA

**OBJECTIVES:** The purpose of this study is to: 1) characterize the changes in utilization of psychotropic medications among adults with anxiety disorder over a 6-year period (2004-2009), and 2) identify factors associated with psychotropic medication use. **METHODS:** Patients with anxiety disorder were identified in the 2004 to 2009 Medical Expenditure Panel Survey (MEPS). Psychotropic medication use was ascertained from a self-reported prescription file. The number and percentage of patients with anxiety using a psychotropic medication was calculated for each year and drug class. We used t-tests to compare psychotropic medication use between 2004 and 2009, and a logistic regression model to identify the factors associated with psychotropic medication use. **RESULTS:** The estimated number of adult patients who reported having an anxiety disorder increased from 18.9 million in 2004 to 21.4 million in 2009. The percentage of patients who reported ever using a psychotropic medication grew from 62.5% in 2004 to 68.6% in 2009 ( $p<0.05$ ) and over one-third of patients reported ever using a selective serotonin reuptake inhibitors (SSRI) (35.3% in 2004 to 37.1% in 2009). From 2004 to 2009, there was a significant increase in the use of benzodiazepines (26.1% to 32.9%,  $p<0.01$ ), serotonin-norepinephrine reuptake inhibitors (SNRI) (6.5% - 10.5%,  $p<0.01$ ), and atypical antipsychotics (4.8% to 8.4%,  $p<0.01$ ). A higher prevalence and significant increase in the use of benzodiazepines was observed among older adults aged  $\geq 65$  years (43.9% in 2004 - 53.0% in 2009,  $p<0.01$ ). Multivariate logistic regression results showed that white race, female gender, higher education, private insurance, and comorbid mood disorders were associated with self-reported psychotropic medication use. **CONCLUSIONS:** In the US, psychotropic medication use among patients with anxiety increased from 2004 to 2009. The high prevalence and increasing trend of benzodiazepine use among older patients with anxiety disorder needs more research to evaluate its implications.

#### PMH13

##### A REAL-WORLD US RETROSPECTIVE DATABASE ANALYSIS EVALUATING TREATMENT PATTERNS, HEALTH CARE RESOURCE UTILIZATION AND COSTS IN PATIENTS WITH BIPOLAR DISORDER NEWLY TREATED WITH IMMEDIATE RELEASE (IR) OR EXTENDED RELEASE (XR) QUETIAPINE FUMARATE

Locklear JC<sup>1</sup>, Alemayehu B<sup>1</sup>, Brody RS<sup>1</sup>, Chavoshi S<sup>1</sup>, Tunceli O<sup>2</sup>, Kern D<sup>2</sup>, Earley WR<sup>1</sup>

<sup>1</sup>AstraZeneca Pharmaceuticals LP, Wilmington, DE, USA, <sup>2</sup>HealthCore, Inc., Wilmington, DE, USA

**OBJECTIVES:** Compare treatment patterns, health care resource utilization and costs in patients with bipolar disorder newly treated with quetiapine IR (QTP-IR) or XR (QTP-XR). **METHODS:** An observational, retrospective cohort study utilizing the HealthCore Integrated Research Database identified patients (18 - 64 years) with an ICD-9 diagnosis of bipolar disorder and  $\geq 1$  pharmacy claim for QTP-IR or QTP-XR between October 2, 2008 and July 31, 2010. Outcomes included: patient characteristics at the index date (first claim for QTP-IR/QTP-XR); 12-month pre-index clinical characteristics, health care resource utilization and costs (inpatient, outpatient and ER visits; pharmacy and other costs); 12-month post-index treatment patterns, health care resource utilization and costs, assessed using generalized linear models adjusted for multiple variables. **RESULTS:** A total of 3049 patients with bipolar disorder were analyzed (QTP-IR,  $n=2,398$ ; QTP-XR,  $n=651$ ). Prior to initiation of QTP, the cohorts had some different characteristics, which were adjusted for. Patients initiating treatment with QTP-XR were more likely to have no change or discontinuation of their index therapy (8.8% vs. 5.7%; OR 1.44 [95% CI 1.03, 2.00],  $p<0.05$ ) compared with QTP-IR. The average daily dose (ADD; mean) of QTP-XR was higher than QTP-IR (225 mg/day vs 175 mg/day,  $p<0.0001$ ). An ADD of 300-800 mg was reached sooner (15.6 days vs. 30.8 days,  $p<0.01$ ) and in more patients (44.2% vs. 27.2%,  $p<0.0001$ ) initiated with QTP-XR compared with QTP-IR. There were no differences in total healthcare costs between cohorts; however, patients initiated with QTP-XR were less likely to be hospitalized for mental-health related reasons (OR 0.65 [95% CI 0.50, 0.85],  $p<0.01$ ), and incurred lower mental-health related costs (\$6686 vs. \$7577,  $p<0.01$ ), compared with QTP-IR. **CONCLUSIONS:** Treatment patterns and dosing differed in patients with bipolar disorder treated with QTP-XR compared with QTP-IR in real-world practice. Mental-health related hospitalizations and costs were reduced in the 12 months following patients initiating treatment with QTP-XR compared with QTP-IR.

#### PMH14

##### PREDICTORS OF AMBULATORY VISIT UTILIZATION AMONG PATIENTS WITH ATTENTION DEFICIT/HYPERACTIVITY DISORDER IN THE UNITED STATES

Bali V<sup>1</sup>, Franzini L<sup>2</sup>

<sup>1</sup>University of Houston, Houston, TX, USA, <sup>2</sup>University of Texas Health Science Center Houston, School of Public Health, Houston, TX, USA

**OBJECTIVES:** Attention Deficit/Hyperactivity Disorder (ADHD) is one of the most commonly diagnosed behavioral disorder among children. Main goal of the treatment of ADHD is to reduce the symptoms of ADHD and improve physical and mental functioning. Different factors affect utilization of ambulatory care by ADHD patients. Our knowledge of these factors, however, is limited. This study tries to fill this gap. Results from this study can help in identifying factors that might be helpful in reducing disparity in ambulatory care received by ADHD patients. **METHODS:** This study used data from 2003-2008 Medical Expenditure Panel Survey (MEPS). Sample consisted of patients with ADHD who were identified using International Classification of Diseases, ninth revision, Clinical Modification (ICD-9-CM) codes. Independent variables were selected based on previous studies in the area of ambulatory visits utilization. Negative binomial regression at a 5% significance level was conducted to estimate the relationship between patient characteristics and number of patient's visit to the office based physicians. **RESULTS:** Prevalence of ADHD was 1.59% ( $n=28,355,049$ ). Most of the patients were male (66.57%), less than/equal to 17 years old (66.14%), White (84.16%), and had private health insurance (65%). Females had 1.28 times (Incidence