response to response during the titration period was estimated using the predicted treatment effect, estimated by a published matching-adjusted indirect comparison (MAIC), mean change in ADHD-RS-IV total score from baseline to endpoint was the efficacy outcome. The incidence rates of adverse events were based on those observed in the clinical trials included in the MAIC. Analyses were conducted using data from the 655 older data and a Canadian Ministry of Health (MoH) perspective over a 1-year time horizon with weekly cycles. Deterministic and probabilistic sensitivity analyses (PSA) were conducted to assess the robustness of the base-case results. RESULTS: Compared with ATX, GXR was a dominant strategy (lower cost and improved efficacy) from a societal perspective, while it was associated with an incremental cost-effectiveness ratio (ICER) of $57,866/QALY from a Canadian MoH perspective. Results of the PSA indicated that the ICER of GXR compared with ATX exceeded the willingness-to-pay thresholds of 8% and 61.3% of the simulations from a societal and a Canadian MoH perspective, respectively.

CONCLUSIONS: This analysis found that GXR was cost-effective relative to ATX from both perspectives in the treatment of children and adolescents with ADHD in Canada.

PMH32
COST-EFFECTIVENESS OF GUANIFACINE EXTENDED-RELEASE AS AN ADJUNCTIVE THERAPY TO A LONG-ACTING STIMULANT VERSUS LONG-ACTING STIMULANT MONOTHERAPY FOR THE TREATMENT OF ATTENTION-DEFICIT/ HYPERACTIVITY DISORDER IN CANADA

Lachaine J, Stikina V, Mathurin K

1University of Montreal, Montreal, QC, Canada, 2Shire Development, LLC, Wayne, PA, USA

OBJECTIVES: Attention-deficit/hyperactivity disorder (ADHD) is a chronic condition that often persists into adulthood. A recent report by the Global prevalence of ADHD estimates that 4.7% of adults in the U.S. have ADHD. Goal of the study was to perform a indirect comparison of oral antipsychotics in order to identify the optimal treatment for ADHD. OBJECTIVES: To compare the cost-effectiveness of oral antipsychotics (oral AP) versus long-acting stimulant monotherapy (PS) in the treatment of ADHD. METHODS: This secondary analysis of a 1-year time horizon with weekly cycles. Deterministic and probabilistic sensitivity analyses (PSA) were conducted to assess the robustness of the base-case results. RESULTS: Compared with ATX, GXR was a dominant strategy (lower cost and improved efficacy) from a societal perspective, while it was associated with an incremental cost-effectiveness ratio (ICER) of $57,866/QALY from a Canadian MoH perspective. Results of the PSA indicated that the ICER of GXR compared with ATX exceeded the willingness-to-pay thresholds of 8% and 61.3% of the simulations from a societal and a Canadian MoH perspective, respectively.

CONCLUSIONS: This analysis found that GXR was cost-effective relative to ATX from both perspectives in the treatment of children and adolescents with ADHD in Canada.

PMH34
THE BURDEN OF OPIOID ABUSE AMONG COMMERCIALLY-INSURSED PATIENTS


1Analysis Group, Inc., Boston, MA, USA, 2Purdue Pharma L.P., Stamford, CT, USA

OBJECTIVES: Prior research has estimated the burden of opioid abuse in the U.S. using past year trends and associated costs. This study provides updated estimates of the burden of opioid abuse. METHODS: Patients aged 12-64 diagnosed with opioid abuse/dependence (“abusers”) were selected from the Truven MarketScan medical and pharmacy claims database, 2009-2012. A 12-month follow-up period centered on the index date (i.e., first abuse diagnosis) was used to assess costs and was preceded by a 6-month baseline period. Patients were required to have continuous non-HMO coverage throughout the study period. Potential cases met specific inclusion criteria but were not diagnosed with abuse, with their index date based on a random medical claim. Abusers were matched 1:1 to controls based on index year, baseline health care costs, and propensity scores to account for confounders. Per-patient health care costs of abusers and matched controls were compared to determine the excess annual health care costs of diagnosed abuse. Costs reflect payments from payers to providers in 2012USD. Prevalence of abuse was estimated in all cost categories: inpatient, emergency department, outpatient, and prescription drug costs (all p-values <0.05). Analysis of abuser burden increased from 2009 to 2012 (5.7% to 7.1%). Patients with opioid abuse had higher all-cause health care costs of opioid abuse, consistent with prior research. The rising prevalence of abuse suggests a growing economic burden but may also reflect increased physician awareness of previously undiagnosed patients.

PMH35
LONG-TERM CARE COSTS OF PATIENTS WITH BINGE EATING DISORDER COMPARED TO PATIENTS WITH EATING DISORDER NOT OTHERWISE SPECIFIED AND NON-ED

 analyzed 73,270/714307/078 (76.9% of abusers) had at least one EDNOS code. The largest component of costs for each category but were not diagnosed with abuse, with their index date based on a random medical claim. Abusers were matched 1:1 to controls based on index year, baseline health care costs, and propensity scores to account for confounders. Per-patient health care costs of abusers and matched controls were compared to determine the excess annual health care costs of diagnosed abuse. Costs reflect payments from payers to providers in 2012USD. Prevalence of abuse was estimated in all cost categories: inpatient, emergency department, outpatient, and prescription drug costs (all p-values <0.05). Analysis of abuser burden increased from 2009 to 2012 (5.7% to 7.1%). Patients with opioid abuse had higher all-cause health care costs of opioid abuse, consistent with prior research. The rising prevalence of abuse suggests a growing economic burden but may also reflect increased physician awareness of previously undiagnosed patients.

PMH36
DIFFERENCES BETWEEN HIGH-COST AND LOW-COST PATIENTS DIAGNOSED WITH OPIOID ABUSE


1Analysis Group, Inc., Boston, MA, USA, 2Purdue Pharma L.P., Stamford, CT, USA

OBJECTIVES: Opioid abuse is associated with annual per-patient excess health care costs exceeding $20,000. Some patients have considerably higher costs, however, and little is known about their characteristics. This study examined the characteristics of high-cost patients diagnosed with opioid abuse. METHODS: Patients aged 12-64 diagnosed with opioid abuse/dependence (“abusers”) were identified in OptumHealth Reporting and Insights medical and pharmacy claims data, 2006-2012. Patients were identified using International Classification of Diseases, Ninth Revision codes (ICD-9) for opioid abuse (PMH34) and non-ED patients. The largest component of costs for each category but were not diagnosed with abuse, with their index date based on a random medical claim. Abusers were matched 1:1 to controls based on index year, baseline health care costs, and propensity scores to account for confounders. Per-patient health care costs of abusers and matched controls were compared to determine the excess annual health care costs of diagnosed abuse. Costs reflect payments from payers to providers in 2012USD. Prevalence of abuse was estimated in all cost categories: inpatient, emergency department, outpatient, and prescription drug costs (all p-values <0.05). Analysis of abuser burden increased from 2009 to 2012 (5.7% to 7.1%). Patients with opioid abuse had higher all-cause health care costs of opioid abuse, consistent with prior research. The rising prevalence of abuse suggests a growing economic burden but may also reflect increased physician awareness of previously undiagnosed patients.

PMH36
DIFFERENCES BETWEEN HIGH-COST AND LOW-COST PATIENTS DIAGNOSED WITH OPIOID ABUSE


1Analysis Group, Inc., Boston, MA, USA, 2Purdue Pharma L.P., Stamford, CT, USA

OBJECTIVES: Opioid abuse is associated with annual per-patient excess health care costs exceeding $20,000. Some patients have considerably higher costs, however, and little is known about their characteristics. This study examined the characteristics of high-cost patients diagnosed with opioid abuse. METHODS: Patients aged 12-64 diagnosed with opioid abuse/dependence (“abusers”) were identified in OptumHealth Reporting and Insights medical and pharmacy claims data, 2006-2012. Patients were identified using International Classification of Diseases, Ninth Revision codes (ICD-9) for opioid abuse (PMH34) and non-ED patients. The largest component of costs for each category but were not diagnosed with abuse, with their index date based on a random medical claim. Abusers were matched 1:1 to controls based on index year, baseline health care costs, and propensity scores to account for confounders. Per-patient health care costs of abusers and matched controls were compared to determine the excess annual health care costs of diagnosed abuse. Costs reflect payments from payers to providers in 2012USD. Prevalence of abuse was estimated in all cost categories: inpatient, emergency department, outpatient, and prescription drug costs (all p-values <0.05). Analysis of abuser burden increased from 2009 to 2012 (5.7% to 7.1%). Patients with opioid abuse had higher all-cause health care costs of opioid abuse, consistent with prior research. The rising prevalence of abuse suggests a growing economic burden but may also reflect increased physician awareness of previously undiagnosed patients.

PMH36
DIFFERENCES BETWEEN HIGH-COST AND LOW-COST PATIENTS DIAGNOSED WITH OPIOID ABUSE


1Analysis Group, Inc., Boston, MA, USA, 2Purdue Pharma L.P., Stamford, CT, USA

OBJECTIVES: Opioid abuse is associated with annual per-patient excess health care costs exceeding $20,000. Some patients have considerably higher costs, however, and little is known about their characteristics. This study examined the characteristics of high-cost patients diagnosed with opioid abuse. METHODS: Patients aged 12-64 diagnosed with opioid abuse/dependence (“abusers”) were identified in OptumHealth Reporting and Insights medical and pharmacy claims data, 2006-2012. Patients were identified using International Classification of Diseases, Ninth Revision codes (ICD-9) for opioid abuse (PMH34) and non-ED patients. The largest component of costs for each category but were not diagnosed with abuse, with their index date based on a random medical claim. Abusers were matched 1:1 to controls based on index year, baseline health care costs, and propensity scores to account for confounders. Per-patient health care costs of abusers and matched controls were compared to determine the excess annual health care costs of diagnosed abuse. Costs reflect payments from payers to providers in 2012USD. Prevalence of abuse was estimated in all cost categories: inpatient, emergency department, outpatient, and prescription drug costs (all p-values <0.05). Analysis of abuser burden increased from 2009 to 2012 (5.7% to 7.1%). Patients with opioid abuse had higher all-cause health care costs of opioid abuse, consistent with prior research. The rising prevalence of abuse suggests a growing economic burden but may also reflect increased physician awareness of previously undiagnosed patients.
disorders (26.5% vs. 13.6%, p < 0.001). In the follow-up period, high-cost patients continued to have higher rates of non-opioid substance abuse diagnoses (52.0% vs. 47.2%, p < 0.001) and psychotic disorders (67.1% vs. 47.5%, p < 0.001). The mean follow-up period health care costs of high-cost patients was $89,177 (vs. $11,653 for low-cost patients (p < 0.001)), of which 38.8% was attributed to inpatient, 21.9% to outpatient, and 18.3% to emergency department visits. After controlling for health status, patients on the index date had a 11.0% risk of prescription drugs costs. **CONCLUSIONS:** High-cost patients diagnosed with opioid abuse are complicated patients with high rates of pre-existing and concurrent chronic comorbidities and mental health conditions.

**PMH37**

**COST OF CARE ATTRIBUTABLE TO ALZHEIMER’S DISEASE FOR MEDICARE ENROLLEES**

**Authors:** 1. Davis J 2.

**University of Hawaii at Hilo, Honolulu, HI, USA, 1John A. Burns School of Medicine, Honolulu, HI, USA**

**OBJECTIVES:** In the US, over 5 million people suffer from Alzheimer’s Disease (AD). The objective of this study is to estimate direct medical costs attributable to AD for Medicare enrollees in 2008 and 2010 according to cost category. **METHODS:** Data were derived from the 2008 Medicare Current Beneficiary Survey (MCBS) and the 2010 Medicare Current Beneficiary Survey (MCBS). We restricted the study population to individuals aged 65 and over. We examined costs of hospital admissions, skilled nursing facility, nursing home, home health, emergency department, outpatient, ancillary fees, etc. To project the impact of the adoption of LRPP, we estimated that direct costs were CDN$21,312 (SD = 27,303), compared to CDN$7,199 (SD = 16,419) in post-initiation period (p < 0.001). The outpatient costs were CDN$1,209 (SD = 2,073) during the pre-initiation period, and CDN$1,196 (SD = 2,184) in the post-initiation period (p = 0.11). Total cost of health care resource, including LRP, were CDN$424,382 (SD = 27,234) in the pre-initiation period, compared to CDN$13,090 (SD = 26,667) in the post-initiation period (p < 0.001). **CONCLUSIONS:** The initiation of LRP resulted in significantly lower health care resource cost and reduction, with the primary driver being a reduction in number of hospitalizations, days of hospitalization and visits to the emergency room.

**PMH41**

**RECENT TRENDS IN POST-TRAUMATIC STRESS DISORDER-RELATED HOSPITALIZATIONS IN THE UNITED STATES**

**Authors:** Candnili S 1, Karve S 2

**RTI Health Solutions, Research Triangle Park, NC, USA**

**OBJECTIVES:** Even with increasing attention given to post-traumatic stress disorder (PTSD) and the increased utilization of healthcare resources by PTSD patients, definitive data concerning PTSD-related economic burden is lacking. This study documents annual rates of PTSD-related hospitalizations in the US (2000-2010), along with associated costs and length of stay (LOS). **METHODS:** Adult (18+ years) PTSD patients were included in this study if PTSD was included in one of the five health plans claims dataset from October 1, 2007 through September 30, 2012. Adult patients diagnosed with bipolar disorder were identified using International Classification of Disease, 9th Revision, Clinical Modification (ICD-9-CM) diagnosis codes: 296.0x, 296.1x, 296.4x, 296.56, 296.7x and 296.8x. The first diagnosis date was defined as the index date for the bipolar disorder cohort. A comparator cohort of patients without a bipolar disorder diagnosis was created using the same procedure. Costs were estimated using health care resource utilization and cost data from the claims database of five health plans in order to identify patients with schizophrenia, bipolar disorder, and PTSD. The number of patients having at least one emergency room visit decreased from 1,372 to 813 patients (p < 0.001), but the number of patients with at least one outpatient visit increased from 29,610 to 33,682 patients (p < 0.001). The pre-initiation period cost were CDN$2,312 (SD = 27,303), compared to CDN$7,199 (SD = 16,419) in post-initiation period (p < 0.001). The outpatient costs were CDN$1,209 (SD = 2,073) during the pre-initiation period, and CDN$1,196 (SD = 2,184) in the post-initiation period (p = 0.11). Total cost of health care resource, including LRPP, were CDN$424,382 (SD = 27,234) in the pre-initiation period, compared to CDN$13,090 (SD = 26,667) in the post-initiation period (p < 0.001). **CONCLUSIONS:** The initiation of LRP resulted in significantly lower health care resource cost and reduction, with the primary driver being a reduction in number of hospitalizations, days of hospitalization and visits to the emergency room.

**PMH42**

**THE IMPACT OF TREATMENT DELAY ON RELAPSE RATES AND HEALTH CARE COSTS AMONG MEDICAID PATIENTS WITH OPIOD DEPENDENCE TREATED WITH BUPRENORPHINE/NALOXONE**

**Authors:** Stip E 1, Van der Meer J 2, 3, Aballéa S 4, Toumi M 4, 5

**University of Montreal, Montreal, QC, Canada, 1Lundbeck SAS, Issy-les-Moulineaux, France, 2Montreal, QC, Canada**

**OBJECTIVES:** The purpose of this study was to describe the resource use before, and after, initiation of long-acting injectable antipsychotics (LAI-AP) using the provincial public health program database of the Régie de l’assurance maladie du Québec (RAMQ). **METHODS:** Patients who were incident users (no use in the previous 12 months) of a LAI-AP prescribed between January 1st 2008 and March 31st 2012, at least 20 years old, with a diagnosis of schizophrenia/schizoaffective disorder and with continuous enrollment during the study period were selected. Resource utilization and associated costs were analyzed both during the year before LAI-AP initiation (pre-initiation period) and the year after (post-initiation period). **RESULTS:** A total of 9,992 patients met the inclusion criteria. The average age was 43.3 years (SD = 14.3). In pre-initiation period, 1,484 patients had at least one hospitalization, compared to 926 in post-initiation period (p < 0.001), and the number of days hospitalized was independent (95 of days [SD = 39.6] vs. 21.2 days [SD = 29.9], p < 0.001). The number of patients having at least one emergency room visit decreased from 1,372 to 813 patients (p < 0.001), but the number of patients with at least one outpatient visit increased from 29,610 to 33,682 patients (p < 0.001). The pre-initiation period cost were CDN$2,312 (SD = 27,303), compared to CDN$7,199 (SD = 16,419) in post-initiation period (p < 0.001). The outpatient costs were CDN$1,209 (SD = 2,073) during the pre-initiation period, and CDN$1,196 (SD = 2,184) in the post-initiation period (p = 0.11). Total cost of health care resource, including LAI-AP, were CDN$424,382 (SD = 27,234) in the pre-initiation period, compared to CDN$13,090 (SD = 26,667) in the post-initiation period (p < 0.001). **CONCLUSIONS:** The initiation of LAI-AP resulted in significantly lower health care resource cost and reduction, with the primary driver being a reduction in number of hospitalizations, days of hospitalization and visits to the emergency room.