Beneficiaries taking LA APs were matched to those taking SA APs 1:2 using propensity score, compliance to AP therapy in the post-IAPSD period, and IAPSD (in order to ensure comparability of follow up periods). Propensity scores were estimated based on beneficiaries age, race, gender, and comorbidity score (Elixhauser) in the 6-month pre-IAPSD period. Outcomes assessed included hospitalization (all-cause and schizophrenia-related), and all-cause healthcare costs (all-cause and schizophrenia-related) during the post-IAPSD period. Both medical and pharmacy costs were considered during estimation of healthcare costs. Healthcare cost outcomes were converted into per member per month (PMPM) estimates. Multivariable logistic regression and generalized linear models were used to assess the relationship between type of AP use (LA or SA) and the outcomes.

RESULTS: The matched cohort included 181 LA users and 362 SA users. Controlling for pharmacy plan (fee-for-service or managed care), beneficiaries in the SA group had 2.14 times the odds (95% CI: [1.33-3.46]) of all-cause hospitalization and 2.35 times the odds (95% CI: [1.19-4.65]) of schizophrenia-related hospitalizations as the LA group. No significant differences were found on healthcare costs between the two groups.

CONCLUSIONS: Even though beneficiaries with schizophrenia had better clinical outcomes when taking LA therapy as compared to SA therapy, healthcare costs were not significantly different between the two groups. Further research needs to be conducted in a larger sample to confirm these findings and determine if the increased costs of LA therapy may be offset by lower costs from reduced hospitalizations.

SPONSORSHIP: Mississippi Division of Medicaid.

F21 Health Care Resource Utilization and Costs in Patients Prior to Schizophrenia Diagnosis

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BACKGROUND: Schizophrenia is a chronic condition associated with substantial health care resource utilization (HCRU) and costs. Evidence suggests there is a high risk period before schizophrenia diagnosis during which a person is likely symptomatic.

OBJECTIVE: To compare HCRU and costs for up to 5 years prior to a diagnosis in a cohort with schizophrenia versus a matched cohort without schizophrenia.

METHODS: This retrospective cohort study included commercially insured schizophrenia patients in the U.S. and assessed HCRU and costs up to 5 years prior to diagnosis compared to a demographically matched population without schizophrenia. Patients newly diagnosed with schizophrenia were identified from the HealthCore Integrated Research Database between 1/1/2007 and 4/30/2016 and were matched 1:4 to a comparator cohort by age, sex and region. Comparators were assigned the diagnosis date of the schizophrenia patient to whom they were matched. Pre-diagnosis observation periods were 0-12, 13-24, 25-36, 37-48, 49-60 months prior to diagnosis. Medical and pharmacy claims were used to compare patterns of care including medications used, HCRU, and costs during the periods prior to schizophrenia diagnosis. Multivariable analysis was used to estimate costs controlling for covariates of interest.

RESULTS: 6,732 newly diagnosed schizophrenia patients were matched to 26,928 non-schizophrenia patients. The schizophrenia cohort had higher adjusted all-cause per patient per month health care costs relative to comparators from the earliest period (49-60 mo. pre-diagnosis, $557 [CI: $474-639] vs. $321 [CI: $288-355]) through the period most proximal to diagnosis (0-12 mo. pre-diagnosis, $1,058 [CI: $998-1,115] vs. $338 [CI: $320-355]). Behavioral health-related costs showed differences in each time period as well with cost ratios (schizophrenia costs: comparator costs) ranging from 5.4 in the earliest period to 14.9 in the year pre-diagnosis. All-cause inpatient admissions, a primary cost driver, were more prevalent among schizophrenia patients than comparators in all time periods (49-60 mo. pre-diagnosis: 9% vs. 4%; 0-12 mo. pre-diagnosis: 33% vs. 4%).

CONCLUSIONS: For up to 5 years pre-diagnosis, patients with schizophrenia had higher all-cause and behavioral health-related HCRU and costs. Costs increased from 5 years to 1 year pre-diagnosis for schizophrenia patients while remaining relatively stable for comparators, and were driven primarily by inpatient stay and prescription drug costs. This pattern suggests early identification may result in enhanced care that improves outcomes and reduces cost.

SPONSORSHIP: Boehringer Ingelheim Pharmaceuticals.

F23 Atypical Antipsychotic Adherence Predicts Inpatient Utilization and Cost in Bipolar I Disorder

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BACKGROUND: Hospitalization is a major cost driver in bipolar disorder, responsible for over one third of medical costs.

OBJECTIVE: This study explored the role of medication adherence on psychiatric hospitalization and associated costs in bipolar I disorder (BD-I) patients taking atypical oral antipsychotics (AP) in a real-world setting.

METHODS: This retrospective study used the Truven Health Analytics MarketScan Medicaid, commercial, and Medicare supplemental claims databases. Adults were identified if they had BD-I and initiated an AP treatment during the study identification period (7/1/15-6/30/16 for Medicaid, 7/1/15-3/31/16 for Commercial and Medicare Supplemental) and had at least 6-month continuous enrollment before (baseline) and after (follow-up) the first day of treatment. Psychiatric-specific hospitalization and cost during the follow-up period were reported, stratified by the proportion of days covered (PDC) and grouped as: fully adherent (80%), partially adherent (40%-<80%), and non-adherent (0%-<40%). Logistic and linear regression models were conducted to estimate the risk of psychiatric hospitalization and inpatient costs during the 6-month follow-up period.

RESULTS: The final sample consisted of 5,892 (32.0%) fully adherent, 4,246 (23.1%) partially adherent, and 8,250 (44.9%) non-adherent patients. The adjusted rate of patients with psychiatric hospitalization during the 6-month follow-up period was lower in the fully adherent (6.0%) vs. partially-(8.3%) or non-adherent (8.8%) groups ($P<0.001$). Using the fully adherent cohort as the reference group, the odds of psychiatric hospitalization were significantly higher for the non-adherent (OR [95% CI]: 1.51 [1.33-1.71]) and partially adherent (1.42 [1.23-1.64]) cohorts. The mean adjusted psychiatric inpatient cost over 6 months among hospitalized patients was lower for the fully adherent cohort ($11,748), than the partially adherent ($15,051 $P=0.002$), or non-adherent cohorts ($13,170, not statistically significant).

CONCLUSIONS: In the treatment of BD-I, greater AP medication adherence was associated with fewer psychiatric-specific hospitalizations. Among hospitalized patients, fully adherence patients has statistically significantly lower psychiatric-specific costs than partially adherent ones. These findings suggest that improving adherence in BD-I may be a valuable goal from both clinical and economic perspectives.

SPONSORSHIP: Otsuka Pharmaceutical Development & Commercialization and Lundbeck.