Poster Tour Guide Packet

ISPOR 2022

Poster Session:	**In-Person and Virtual Poster Session 5**
Tour Name:	**Mental Health**
Tour Time:	Wednesday, May 18, 2022, 9:00 - 10:00 AM
Tour Area:	Area B, Prince George Exhibit Hall

Acceptance Code:	EE9
Abstract Title:	Real-World Naloxone Prescription Trends, Costs, and Comorbidities in Commercial, Managed Medicare, and Medicaid Patients in the United States (2016-2019)
Presenting Author:	Arun Changolkar

Abstract Body:

OBJECTIVES: CDC recommends naloxone co-prescribing for at-risk prescription opioid patients. A large US healthcare claims database was analyzed to assess the prescription naloxone patient trends and other characteristics.

METHODS: This study evaluated anonymized Commercial, Managed Medicare, and Medicaid patient claims from Optum. NRxOUDBP (prescription naloxone users for opioid use disorders/misuse/dependence/high risk/combination with buprenorphine or pentazocine) between Jan 2016 through Dec 2019 were identified. Patients >18 years with minimum continuous enrollment of 30 days at index event (first naloxone prescription date) were included. Prescribing trends, Charlson- and the Agency for Healthcare Related and Quality (AHRQ 1, 2, and 3)- comorbidities at baseline, and per member per month costs (PMPMC) were analyzed by Commercial, Medicare, and Medicaid annually.

RESULTS: During 2016 to 2019, 35,660, 49,842, 71,633, and 86,662, respectively, NRxOUDBP were identified. In 2019, 50% were <50 years. Between 2016-2019, a 23 percent point (%p) decrease in prescribing patterns was noted among <50 year and ~23%p increase among > 50 year. In addition, naloxone prescribing patterns demonstrated a decrease of ~18.17%p among Caucasian, ~6.58%p decrease in male and ~6.59%p increase among female patients between 2016-2019. There was ~56% increase in PMPMC between 2016 and 2019. Co-prescribing states Ohio and Arizona dispensed naloxone for 7,025 and 7,040 NRxOUDBP, respectively in 2019. Most prevalent Charlson comorbidities included chronic pulmonary disease, mild liver disease, diabetes with chronic complications, and malignancy. Mental illness and diseases of musculoskeletal disorders (AHRQ1), substance related disorders, and spondylosis; intervertebral disc disorders; other back problems (AHRQ2 & AHRQ3) were most common.

CONCLUSIONS: This study demonstrates varying trends each year by state, PMPMC, and comorbidities among NRxOUDBP. Decreasing naloxone prescribing trends among Caucasians and a switch from male to female is distinct. Additional studies investigating co-prescribing state data to prove overall naloxone value proposition and improve co-prescribing are needed.

Poster Tour Guide Packet

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Acceptance Code:	SA15
Abstract Title:	Real-World Calibration of the Disease Recovery Evaluation and Modification (DREaM) Randomized Clinical Trial in Adult Medicaid Beneficiaries With Recent-Onset Schizophrenia
Presenting Author:	Charmi A. Patel

Abstract Body:

Objective: To determine whether reductions in psychiatric hospitalizations with early initiation of paliperidone palmitate (PP) versus oral antipsychotic (OAP) therapy observed in a DREaM post hoc analysis are reproducible in real-world patients with recent-onset schizophrenia.

Methods: US patients diagnosed with schizophrenia and enrolled in the DREaM RCT received treatment with continuous OAP for 18 months (OAP-OAP cohort, n=45), continuous PP for 18 months (PP-PP cohort, n=44), or OAP for 9 months then PP for 9 months (OAP-PP cohort, n=43). DREaM inclusion/exclusion criteria were used to identify a real-world OAP-OAP treated cohort using 2015-2019 Truven IBM Medicaid Managed Care databases (MMC, n=1000). MMC and DREaM cohorts were combined, and the propensity score of belonging to the MMC cohort was estimated using baseline variables identified from double-lasso regression. Weighted DREaM OAP-OAP psychiatric hospitalizations were compared with observed MMC psychiatric hospitalizations for calibration. Weighted DREaM OAP-PP and PP-PP psychiatric hospitalizations were compared with observed MMC psychiatric hospitalizations for real-world effectiveness estimates.

Results: Standardized mean differences in baseline covariates between DREaM and MMC cohorts were substantially reduced (<0.5) after calibration. The 18-month cumulative numbers of psychiatric hospitalizations per patient were 0.83 (SE, 0.14) in the MMC cohort, 0.43 (0.14) in the unweighted DREaM OAP-OAP cohort, and 0.79 (0.37) in the calibrated DREaM OAP-OAP cohort. The latter was not statistically different from the MMC cohort (difference=0.035 [95% CI: –0.67, 0.81]), implying similarities for patients between the MMC and calibrated DREaM cohorts. Calibrated effects on 18-month cumulative psychiatric hospitalizations for OAP-PP and PP-PP in comparison with observed MMC outcomes were –0.77 (95% CI: –1.08, –0.47) and –0.83 (95% CI: –1.15, –0.60), respectively.

Conclusion: DREaM data could be successfully calibrated to MMC. Calibration results showed that early initiation of PP may reduce psychiatric hospitalizations in real-world patients, with magnitudes larger than those observed in the DREaM RCT.

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Acceptance Code:	CO110
Abstract Title:	Comparative Effectiveness of Sertraline, Fluoxetine Vs Escitalopram Among Adults with Depression in the United States
Presenting Author:	Kwame Adjei

Abstract Body:

OBJECTIVE: To evaluate the impact of Sertraline, Fluoxetine and Escitalopram monotherapy on psychological distress among adults with depression.

METHOD: The Medical Expenditure Panel Survey (MEPS) household component longitudinal data files from 2012-2019 (panel 17-23) were used. Study participants included adults above 19 years old, diagnosed with depression, and were on one of the aforementioned antidepressants. Participants who only initiated antidepressants at rounds 2 and 3 of each panel were included. The impact of the medicines on psychological distress was assessed using change in Kessler Index (K6) scores, which were measured only in rounds 2 and 4 of each panel. Changes in K6 scores ≤ 6 were identified as improvement, 7-12 (unchanged) and, > 12 (decline) in psychological distress. Multinomial logistic regression was conducted using change in K6 scores as a dependent variable. Independent variables included medication type, age, gender, and race.

RESULTS: 814 participants were included in the study. Sertraline (40%) was the most utilized medication. 72% of the study population were females. Non-Hispanic Whites represented 80% of the study population. The three medications were mostly utilized among age group 40-59 (37%). 90.79% of the participants taking any of the medications showed improvement in psychological distress. Fluoxetine had the highest improvement rate (91.87%) compared to Escitalopram (90.38%) and Sertraline (90.27%). Patients on Escitalopram (OR=0.66; P=0.247) and Sertraline (OR=0.85; P=0.631) were less likely to improve in psychological distress than patients on Fluoxetine. Generally, Blacks on SSRIs (OR=5.32; P=0.016) were more likely to decline in psychological distress than Whites.

CONCLUSION: All the medications effectively improved psychological distress, with Fluoxetine having the highest improvement rate. While Sertraline and Escitalopram were less likely to improve psychological distress than Fluoxetine, result was statistically insignificant possibly because of smaller sample size. Further study is needed to assess the comparative effectiveness and health-care utilization of these medications.

Poster Tour Guide Packet

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Acceptance Code:	CO122
Abstract Title:	Patient Versus Caregiver and Clinician Reports of Cognitive Difficulties in Patients with Schizophrenia Switching to Long-Acting Injectable Antipsychotic Aripiprazole Lauroxil: A Post Hoc Analysis
Presenting Author:	Sabina M Gasper

Abstract Body:

Background: Discrepancies between patient- and clinician-perceived cognitive functioning in people with schizophrenia have been associated with functional impairment, which can be further confounded by side effects of treatment. Perceived cognitive impairment and level of agreement between patient, clinician, and caregiver responses on the New York Assessment of Adverse Cognitive Effects of Neuropsychiatric Treatment (NY-AACENT) were assessed for patients with schizophrenia switching to the long-acting injectable antipsychotic aripiprazole lauroxil (AL).

Methods: Clinically stable adults with schizophrenia with inadequate response or intolerability to paliperidone palmitate or risperidone LAI were switched to 6-month, open-label treatment with AL (441, 662, or 882 mg monthly or 882 mg q6wk). NY-AACENT patient, caregiver, and clinician forms were completed at baseline and month 6 or early termination. Level of agreement between groups in ratings of cognitive difficulty (not present, mild, moderate, severe, extreme) in NY-AACENT domains (Working Memory, Attention/Vigilance, Verbal Learning/Memory, Visual Learning/Memory, Reasoning and Problem Solving, Speed of Processing, Social Cognition) was evaluated at baseline and last assessment using weighted kappa coefficients.

Results: Fifty-one patients (mean age, 40.6 years) were enrolled; 35 completed the study. At baseline (n=50), cognitive difficulties were most commonly rated ‘not present’ or ‘mild’ in all NY-AACENT domains by patients (58%–86% across domains), clinicians (62%–94%), and caregivers (50%–92%). Percentages reporting cognitive difficulties ‘not present’ or ‘mild’ increased at last assessment for all reporters. Weighted kappa coefficients indicated fair to substantial agreement between patients and clinicians across domains at last assessment (0.32–0.64; baseline: 0.14–0.55); patient-caregiver agreement ranged from 0.07 to 0.50 at last assessment.

Discussion: In this analysis, clinician, caregiver, and patient reports indicate reduced cognitive impairment, on average, in all NY-AACENT domains after 6 months of AL treatment. Patient-clinician agreement on magnitude of improvement was higher than patient–caregiver agreement and increased from baseline to last assessment.

Poster Tour Guide Packet

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Acceptance Code:	CO73
Abstract Title:	Association of Antipsychotic Treatment Adherence and Switching with Healthcare Utilization Using Medical Records Data
Presenting Author:	Farid Chekani

Abstract Body:

OBJECTIVES: Among individuals living with schizophrenia or bipolar disorder, several reasons for non-adherence to antipsychotic medication have been cited, including attitudes about medication and side-effects. It has been shown that medication non-adherence is associated with increased utilization of healthcare resources.

METHODS: We used electronic health records (EHR) data to identify individuals with at least one 60-day period of suspected continuous use of antipsychotics between 2005 and 2019. Adult patients were identified with bipolar and schizophrenia spectrum disorders, or psychiatric controls (neither a schizophrenia nor bipolar diagnosis). We examined the association of acute care utilization (all cause ED visits and inpatient admissions) with medication adherence and medication switching during the first 180 days of treatment. Adherence was defined as proportion of days counts (PDC) greater than 0.8. The antipsychotic medication exposure variable was a combination of adherence and switching to account for an interaction between the two measures.

RESULTS: After adjusting for prior utilization and medical comorbidity, patients who were non-adherent without switching medications were more likely to have an inpatient admission (OR=1.58, 95% CI=[1.20, 2.08]) than patients who were adherent to their first antipsychotic medication. Patient who switched antipsychotic medications were more likely to have an inpatient admission than patients adherent to initial antipsychotic medication (switched and adherent (OR=2.77, 95% CI=[1.82, 4.21]); switched and non-adherent (OR=2.24, 95% CI=[1.48, 3.39])). Finally, patients who completely stopped antipsychotic medication were more likely (OR=1.77, 95% CI=[1.29, 2.41]) to have an inpatient admission during the first 180 days of treatment compared to patients who were adherent to their first antipsychotic medication. We obtained similar results when examining the effect of non-adherence and medication switches on any ED visit and the number of ED visits.

CONCLUSIONS: Non-adherence and medication switches were both associated with increased acute care utilization during the first 180 days of treatment.

Poster Tour Guide Packet

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Acceptance Code:	RWD66
Abstract Title:	Leveraging Laboratory Results from Multiple Data Sources to Re-Assess a Possible Association between Serum Uric Acid and Schizophrenia in Real World Practice Settings
Presenting Author:	Daniel Aguilar

Abstract Body:

OBJECTIVES: The relationship between serum uric acid (UA) and schizophrenia has been extensively investigated but remains unclear. Analysis of this relationship in RWD requires sufficient sample size and integrating multiple data sources. We leveraged laboratory results from a national supplier (Quest Diagnostics) to enhance clinical records in IQVIA's Ambulatory Electronic Medical Records (AEMR).

METHODS: Adult patients with schizophrenia (ICD9/10CM/SNOMED-CT) and medication order(s) for antipsychotics (GPI) and UA results between 11/1/2018-10/31/2021 were identified. A gender/age-matched control group was selected from non-schizophrenia patients with UA results during the same timeframe. Gender-specific categorization of high/medium/low UA range levels (in mg/dL) were constructed for schizophrenia and control groups (mean UA used for patients with multiple results). Demographic variables and clinical profiles from available EMR history were summarized for schizophrenia UA subgroups with control comparisons.

RESULTS: Of 57,413 schizophrenia patients, 2,124 had UA results in our Quest-enhanced data source: mean observation period 6.0±4.4 years, 51.3% women, mean age 57.7±13.9 years, and 49.3% Caucasian. UA levels were nearly identical between schizophrenia patients (6.0±1.8mg/dL) and controls (5.9±1.7mg/dL). As expected, diagnoses of gout and hyperuricemia were more common in patients with high UA versus normal/low UA. However, high UA schizophrenia patients were also more likely to have co-morbidities like chronic kidney disease and hypertension, whereas patients in the low UA group were more likely to have gastrointestinal-related diagnoses and hyponatremia; such findings also contributing to a co-morbid profile that was generally more pronounced in schizophrenia patients versus controls.

CONCLUSIONS: We found nearly identical UA levels between schizophrenia and control groups. However, we observed differences in clinical profiles between high-versus-low UA (and versus controls) that require further investigation to adjust for drug therapy, disease duration and comorbidities. It is possible to construct large real-world databases linking EMR and clinical labs to investigate elusive associations between biometric measurements and diagnoses/outcomes.