at week 6; the functional remission rate was similar for participants receiving lurasidone 20-60 mg and lurasidone 80-120 mg group (41.1% and 40.6%, respectively). Controlling for baseline SDS total score and study center, the adjusted odds ratio for functional remission among participants receiving lurasidone versus placebo was 3.96 (p<0.01, 95% CI [1.72, 9.13]) in the 20-60 mg lurasidone group and 2.46 (p=0.52, 95% CI [1.12 - 5.43]) in the 80-120 mg lurasidone group. **CONCLUSIONS:** This post-hoc analysis of a lurasidone pivotal trial showed statistically significant improvement in functional remission within 6-week study duration among patients with bipolar depression treated with lurasidone compared to placebo.

PMH10
SYSTEMATIC REVIEW OF LONG-ACTING INJECTABLES (LAI) VERSUS ORAL ATYPICAL ANTIPSYCHOTICS (OA) ON HOSPITALIZATION IN SCHIZOPHRENIA
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OBJECTIVES: The current study aimed at assessing the impact of LAIs versus OAs on hospitalizations among patients with schizophrenia by conducting a thorough systematic review of studies with different study designs and performing a meta-analysis. **METHODS:** Using the PubMed database and major psychiatric conference proceedings, a systematic literature review for 01/2000–07/2013 was performed to identify English-language studies evaluating schizophrenia patients treated with atypical antipsychotics. Studies reporting hospitalization rates as a percentage of patients hospitalized or as the number of hospitalizations per-person per-year were selected. A meta-analysis of the percentage decrease in hospitalization rates from baseline during treatment was conducted as a primary analysis. The secondary analysis was a meta-analysis of the absolute rate of hospitalization during follow-up. Pooled treatment-effect estimates were calculated using random-effect models. To account for differences in patient and study-level characteristics between studies, meta-regression analyses were used. Subset analyses further explored the heterogeneity across study designs. No adjustment was made for multiplicity. **RESULTS:** Fifty-eight studies evaluating 25 arms (LAIs: 13 arms, 4,516 patients; OAs: 12 arms, 23,516 patients) in the primary analysis and 78 arms (LAIs: 12 arms, 4,481 patients; OAs: 66 arms, 96,230 patients) in the secondary analysis were identified. Reduction in hospitalization rates for LAIs was 20.7 percentage points higher than that of OAs (random-effect estimate: LAIs=56.2% vs OAs=35.5%, P=0.023). Controlling for patient and study characteristics, the adjusted percentage reduction in hospitalization rates for LAIs was 26.4 percentage points higher than for OAs (95%CI: 3.3-49.5, P=0.027). As for the secondary analysis, no significant difference between LAIs and OAs was observed (random-effect estimate: -8.6, 95%CI: -18.1-1.0, P=0.077). Subset analyses across type of study yielded consistent results. **CONCLUSIONS:** Results of this meta-analysis including studies with both interventional and non-interventional designs and using meta-regressions, suggest that LAIs significantly reduce hospitalization rates for schizophrenia patients compared to OAs.

PMH11
THE TRADEOFF BETWEEN INTERNAL AND EXTERNAL VALIDITY IN COMPARING THE EFFECTIVENESS OF TRANSCRANIAL MAGNETIC STIMULATION (TMS) WITH ANTIDEPRESSANT DRUG THERAPY IN THE TREATMENT OF MAJOR DEPRESSION USING PROPENSITY SCORE METHODS
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OBJECTIVES: Transcranial magnetic stimulation (TMS) is FDA cleared for use in pharmacoresistant depression. Two sham-controlled trials have confirmed its efficacy and safety. However, TMS has not been directly compared to pharmacotherapy. Propensity score matching was used to compare the effectiveness of TMS to pharmacotherapy. Prospectively collected data from a pragmatic study of 305 patients treated in routine practice with TMS were matched to patients from the Sequenced Treatment Alternatives to Relieve Depression (STAR*D) study. **METHODS:** TMS patients were propensity-score matched to STAR*D patients on baseline characteristics using a 1:1 greedy matching algorithm. An unequal drug resistance distribution in the two populations allowed only 222 patients to match well on the first attempt. A subsequent re-matching of the remaining TMS subjects to the full STAR*D control population was performed to produce a complete match. This "double-dipping" approach enabled a successful complete match for all 305 TMS patients. **RESULTS:** The matched STAR*D and TMS populations were similar at baseline. QIDS-SR outcomes at 6 weeks showed that the TMS group had a greater clinical improvement (P<0.0001). At 6-weeks 53% of TMS patients had no or mild depression versus 38% for STAR*D (p=0.0023). Sensitivity analysis was used to estimate the potential effects of any remaining selection biasing factors, and confirmed an unlikely impact on results. **CONCLUSIONS:** The varying distribution of the severity of baseline treatment resistance between the TMS and STAR*D populations made it impossible to achieve a complete match in the first matching attempt. Subsequent, "double-dipping" allowed tight matching on baseline variables. We accepted the risk to internal validity posed by the remaining selection bias or confounding and the small impact to variability due to non-independence, in exchange for gaining an increased external validity for this difficult to match group. Matching hard-to-match groups requires a trade-off between risks to internal and external validity.

PMH12
BENEFITS OF A PATIENT-ASSISTED MEDICATION ADHERENCE PROGRAM FOR LONG-ACTING INJECTABLE RISPERIDONE ON HIGH-COST OUTCOMES IN SCHIZOPHRENIA
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OBJECTIVES: Poor adherence to antipsychotics in schizophrenia is common and associated with increased hospitalization risk, a key driver of increased costs of care. The objective was to evaluate the effectiveness of a patient-assisted medication adherence program (PAMAP) on psychiatric hospitalization rates among schizophrenia patients treated with long-acting injectable risperidone (RLAI). **METHODS:** Between 2009-2010, patients aged 18-65 years meeting DSM-IV criteria for schizophrenia and treated with RLAI were recruited from 36 centers in France and followed for 1 year. The PAMAP consisted of calling patients 48 hours prior their scheduled RLAI injections and within 3 days of a missed appointment. Adherent centers applied PAMAP to ≥50% of injections. Adherent patients received ≥ 80% of their injections within 5 days of the scheduled date. Otherwise, patients and centers were non-adherent. Poisson regression was used to derive rate ratios (RR) comparing psychiatric hospitalization rates among adherent and non-adherent patients and centers. Propensity scores were used to derive adjusted RRs. **RESULTS:** Of 506 recruited patients, 95.7% were followed up to 1 year (average age: 38.7; 64.6% males; 60.4% hospitalized in the previous year). Overall hospitalization rate over follow-up was 32.5 per 100 person-years. Fifteen centers treating 243 patients and 21 centers treating 263 patients were adherent and non-adherent, respectively. Lower hospitalization rates were associated with PAMAP (crude RR: 0.64 [95% CI: 0.44-0.93]; adjusted RR: 0.78 [95% CI: 0.47-1.27]). Nearly 75% of patients were adherent but adherence was not associated with disease severity nor with reduced hospitalization rates. The effect of PAMAP on hospitalizations rates was greater among non-adherent (adjusted RR: 0.45 [95% CI: 0.16-1.28]) than adherent patients (adjusted RR: 0.88 [95% CI: 0.51-1.53]). **CONCLUSIONS:** Adherence among schizophrenia patients partaking in a PAMAP for RLAI was high. PAMAP may reduce psychiatric hospitalization risk for schizophrenia patients with problems adhering to long-acting injectable antipsychotics treatment regimens.

PMH13
EVALUATING THE IMPACT OF CANNABIS USE ON METABOLIC SYNDROME USING DATA FROM THE CONTINUOUS NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY
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OBJECTIVES: Cannabis is the most commonly used illicit substance in the United States. Usage rates have climbed in recent years, underscoring the need for knowledge regarding the effects of cannabis use on factors associated with chronic health problems, such as heart disease and diabetes mellitus. Some studies suggest that cannabis use is associated with improvements in weight, BMI, and insulin resistance. **METHODS:** Data on 4,267 persons from Continuous National Health and Nutrition Examination Survey (NHANES) from 2005 to 2010 was used to explore the relationship between cannabis use and factors of metabolic syndrome, including fasting insulin, glucose, insulin resistance, hemoglobin A1c, triglycerides, HDL cholesterol, BMI, waist circumference, and blood pressure. These relationships were first estimated with ordinary least squares (OLS) models. Next, instrumental variables (IV) methods were utilized to test and account for the potential endogeneity of cannabis use in the models. The first IV models used sexual behavior variables as instruments for past and current use of cannabis. The second used past cannabis use as an instrument for current use. **RESULTS:** OLS models show lower fasting insulin, insulin resistance, BMI, and waist circumference in past cannabis users compared to individuals who reported never having used cannabis. In the first IV model, the coefficients on cannabis use are mostly non-significant. When past cannabis use is an instrument for current use, the results for fasting insulin, insulin resistance, and fasting glucose are significant in the opposite direction from the OLS results. Durbin-Watson-Hausman tests provide evidence of endogeneity of cannabis use for some outcomes. **CONCLUSIONS:** Models of the relationship between cannabis and health should account for endogeneity. Results of two-stage least squares estimation are inconsistent with OLS results, challenging the robustness of findings that indicate a positive relationship between cannabis use and fasting insulin, insulin resistance, BMI, and waist circumference.

PMH14
RISK OF PSYCHOSEXUAL DYSFUNCTION BETWEEN USERS OF SELECTIVE SEROTONIN REUPTAKE INHIBITORS AND SEROTONIN NOREPINEPHRINE REUPTAKE INHIBITORS
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OBJECTIVES: Newer antidepressants selective serotonin reuptake inhibitors (SSRIs) and serotonin norepinephrine reuptake inhibitors (SNRIs) are the most commonly prescribed antidepressants. This is due mostly to their better side effect profile when compared to older drugs like tricyclic antidepressants (TCAs). However these classes are not completely bereft of side effects. Psychosexual dysfunction is a condition that occurs commonly among depressed patients. It has been shown to be associated with antidepressant. The objective of our study is to compare the incidence of psychosexual dysfunction between TCAs, SSRIs, and SNRIs. **METHODS:** We used a cohort study design in an administrative claims database (2006-2013 Lifelink claims data) to compare the incidence of psychosexual dysfunction in TCAs, SSRIs, and SNRIs. Incidence was reported per 10,000 person-years. The Cox proportional hazard model was used to assess the risk of adverse events while adjusting for potential confounders. **RESULTS:** A total of 269489 patients with an incident prescription for a TCA, SSRIs or SNRIs were identified and met the study inclusion criteria. They constituted a total of 682,657 person years. The unadjusted hazard ratio of incidence of psychosexual dysfunction in patients on SNRIs compared to SSRIs was 1.625 (1.506-1.755). The results were consistent after adjusting for various covariates using the Cox proportional hazards model. The hazard ratio for the full model was 1.429 (1.323-1.545) and for the reduced model with covariates identified using stepwise regression was 1.431(1.325-1.546). The directionality of covariates adjusted for in the analysis was consistent with current literature. **CONCLUSIONS:** SNRIs were associated with a greater risk of psychosexual dysfunction than SSRIs.