vant articles, the final articles that were considered for review were 82 for treatment response and 13 for risk factors. Fifty-one studies examined non-genetic factors, serotonin-related genetic factors and variety of genes and polymorphism biomarkers to determine their association with MDD treatment response. Thirty-one studies focused on variables that were found to be associated with some aspect of MDD and their impact on treatment response and include: comorbidity (n=12), demographic and socioeconomic (n=6), and depression-related (n=13) variables. Thirteen studies examined the risk factors for MDD. Of these, 2 studies focused on the role of biomarkers in MDD risk. And, 11 studies focused on variables that were found to be associated with some aspect of MDD and their impact on MDD risk, and focused on comorbidity (n=5), demographic and socioeconomic (n=2), depression-related (n=3), and environmental variables (n=1). **CONCLUSIONS:** The majority of the biomarker studies examined associations between the serotonin transporter, genes and polymorphisms in response to various MDD treatments. With respect to correlate studies, younger age of MDD onset, as well as family history of mood disorders, were both associated with a longer duration of MDD illness.

PMH2

LENGTH OF STAY AND OUTCOMES FOR ADOLESCENTS TREATED FOR SUBSTANCE USE DISORDER: AN ANALYSIS OF DOSE RESPOSE USING PROPENSITY SCORES

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OBJECTIVES: This research uses propensity score methods to identify the relationship between amount of treatment and treatment outcome for adolescents with psychoactive substance use disorder (PSUD). The objective is to describe the dose response relationship in terms relevant in economic evaluation. Outcomes studies in this population show that longer treatment leads to more positive outcomes. The standard for residential programs is a minimum of 21 days of treatment and ideally up to 90 days. **METHODS:** The subjects are 377 adolescents who successfully completed primary treatment from 2004-2010. All were placed at ASAM level III.5 (Clinically-Managed, Medium/High Intensity Residential). The data are from treatment records and a 234-item questionnaire. The questionnaire responses were matched to variables in treatment records creating a rich source of pre-treatment characteristics. This research operationalizes dose with four one-month categories (1 dose=1 month) to capture nonlinearities between service use and outcomes. The outcome is three-month post-treatment drug/alcohol abstinence. The categories were fairly even and captured 92% of variation in dose. The first stage of statistical analysis used multinomial logistic regression to predict dosage with pre-treatment variables while adjusting for characteristics influencing both dose and treatment outcome. Propensity scores were then created for each dosage category. The dose response relationship was assessed using a binomial logistic regression including the four dose categories as dummy variables (lowest dose category as reference). **RESULTS:** The overall relationship between dose and outcome was significant (p=0.01) as were outcome improvements over the four doses. Improvements were significant ($p \leq 0.01$) decreasing as dose increased—Exp.(*B*) was1.204 (1.2 times more likely to abstain) for one month, 1.532 two months, 1.643 three months, and 1.794 for four months (% correctly classified=94.2; – 2LL=44.712; Cox and Snell R^2=0.475.) **CONCLUSIONS:** This research shows a significant dose response relationship between treatment length and treatment outcome with response diminishing on the margin.

PMH3

CLINICAL OUTCOMES OF PATIENTS WITH MAJOR DEPRESSIVE DISORDER TREATED WITH EITHER DULOXETINE OR SELECTIVE SEROTONIN REUPTAKE INHIBITORS IN MEXICO

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OBJECTIVES: To compare treatment outcomes in patients with major depressive disorder (MDD) treated with either duloxetine or a selective serotonin reuptake inhibitor (SSRI) for up to 6 months in a naturalistic setting in Mexico. **METHODS:** Data in this *post hoc* analysis were taken from a 6-month prospective, non-interventional, observational study that included a total of 1,549 MDD patients without sexual dysfunction in twelve countries (N=591 in Mexico). Depression severity was measured using the Clinical Global Impression (CGI) and the 16-item Quick Inventory of Depressive Symptomatology Self-Report (QIDS-SR_{16}). Pain was measured using the pain related items of the Somatic Symptom Inventory (SSI), and quality of life (QoL) was measured using the EQ-5D instrument with the UK population tariff and the EQ-VAS. Probabilities of initiating duloxetine (vs. SSRIs), expressed as propensity scores, were first constructed using logistic regression. Mixed effects modelling with repeated measures (MMRM) analysis was then used to compare treatment effectiveness and QoL between the duloxetine (N=168) and SSRI (N=413) groups, controlling for the propensity scores and other patient characteristics. **RESULTS:** The severity of depression was comparable between the two groups at baseline. Duloxetine-treated patients, however, had a higher level of pain severity and a lower level of QoL (EQ-5D) than SSRI-treated patients at baseline ($p \leq 0.001$). Both descriptive and MMRM regression analyses showed that patients treated with duloxetine had better outcomes during follow-up, compared with patients treated with SSRIs. At 6 months, duloxetine-treated patients had lower levels of CGI (2.25 vs. 2.52, p=0.005), QIDS-SR_{16} (3.95 vs. 5.35, p<0.001), and SSI-pain related (8.52 vs. 9.64, p<0.001), and higher levels of EQ-5D (0.92 vs. 0.87, p<0.001) and EQ-VAS (64.62 vs. 57.63, p=0.006) (MMRM results). **CONCLUSIONS:** Duloxetine-treated patients had better 6-months outcomes in terms of depression severity, pain and QoL, compared with SSRI-treated patients.

PMH4

A COMPREHENSIVE REVIEW OF EPIDEMIOLOGY AND ECONOMIC STUDIES FOR PATIENTS DIAGNOSED WITH NON-PSYCHOTIC MAJOR DEPRESSIVE DISORDER

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OBJECTIVES: To conduct a systematic review of literature in on epidemiology and economic studies for patients diagnosed with Non-Psychotic Major Depressive Disorder (MDD). **METHODS:** The initial search strategy was developed in the PubMed/Medline database, and was then translated for the Cochrane and Embase database searches. Search strings for epidemiology and economics studies for MDD were constructed using varied approaches that included the use of MeSH terms, as well as keywords that would afford the best retrieval. Search statements were then combined to produce a final search set. Additional parameters were placed on the final search strategy to limit the retrieval to articles written in English, involving human subjects and published between 2000 and 2010. **RESULTS:** Our search revealed 289 articles for epidemiology and 200 articles for economic studies on MDD from PubMed/Medline/Embase/Cochrane databases. After removing duplicates and non-relevant articles, 17 for epidemiology and 26 for economic studies were included in the final analysis. Fifteen studies on epidemiology were focused on MDD prevalence, one study was on cumulative incidence. Prevalence estimates were higher for lifetime than past year and ranged between 3.1% and 26.6% for lifetime prevalence and between 1.5% and 11.7% for past-year prevalence. Two studies examined burden of illness, one study budgetary impact of MDD, 14 studies examined cost effectiveness of MDD treatments, 3 studies examined cost utility analysis and 6 other studies examined retrospective claims analysis. **CONCLUSIONS:** MDD prevalence was higher in the lifetime estimates, when compared to the estimates reflecting shorter time frames, although there appeared to be greater variability in the lifetime estimates. Overall, the cost of treating MDD varied with type of study, study time frame, study perspective, the year in which the costs were calculated, and the pharmacotherapy prescribed.

PMH5

EVALUATION OF ASSOCIATIONS AMONG BIOMARKERS, CORRELATES AND TREATMENT EFFICACY IN CLINICAL STUDIES IN PATIENTS DIAGNOSED WITH NON-PSYCHOTIC MAJOR DEPRESSIVE DISORDER: A LITERATURE REVIEW

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OBJECTIVES: To perform a systematic review of literature in peer-reviewed journals on clinical biomarkers, correlates and treatment efficacy in clinical studies on patients diagnosed with Non-Psychotic Major Depressive Disorder (MDD). **METHODS:** The initial search strategy was developed in the PubMed/Medline database and was then translated for the Cochrane and Embase database searches. Search strings for biomarkers, correlates and treatment efficacy in patients with MDD were constructed using varied approaches that included the use of MeSH terms, as well as keywords that would afford the best retrieval. Also included were search terms that used an asterisk as a wildcard applied to a word stem. Search statements were then combined to produce a final search set. Additional parameters were placed on the final search strategy to limit the retrieval to articles written in English, involving human subjects and published between 2000 and 2010. **RESULTS:** The initial search revealed 871 articles from PubMed/Medline/Embase/Cochrane databases. After removing duplicates and non-relevant articles, the final articles that were included in the review were 131. Forty-eight studies examined biomarkers and primarily focused on the relationship between biomarkers and MDD treatment response. Only 29 of the 48 studies found a significant association between a biomarker and treatment response. Twenty-nine studies examined MDD correlates such as comorbidity or demographic variables. A poorer response to treatment was found for those patients who experienced comorbid anxiety, irrespective of the type of treatment. Fifty-four studies focused on treatment efficacy and are divided into 3 groups: SSRIs only, SNRIs only, and a comparison across SSRIs, SNRIs, and bupropion. Overall, the SSRIs showed comparable efficacy when compared to each other or placebo. **CONCLUSIONS:** Most of the biomarker studies examined associations between the serotonin transporter and response to various MDD treatments. The majority of efficacy studies found that the treatments that are within the class had comparable efficacy.

MENTAL HEALTH – Cost Studies

PMH6

THE IMPACT OF ANTIPSYCHOTICS POLYPHARMACY ON HEALTH CARE COSTS OF PEOPLE WITH MENTAL DISORDERS IN SÃO PAULO CITY, BRAZIL

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OBJECTIVES: Antipsychotics polypharmacy (AP) has been associated with more adverse drug effects, higher treatment costs, worse clinical outcomes and sudden death. Though, the frequency of such practice may reach 50 % in some clinical settings. The aims of this study were to estimate AP costs and its influence on the direct costs of health care package in a sample of people with mental disorders in São Paulo city, Brazil. **METHODS:** We used a bottom-up approach for the estimation of direct costs according to public health service provider perspective. Direct costs included costs with accomodation (residential service), inpatient, outpatient and emergency services and treatment received in the previous month, in 147 subjects with mental disorders living in twenty residential services during the year 2011. We evaluated quality of life, social behavior problems, psychiatric diagnosis, severity of symptoms, sociodemographics characteristics and pattern of health service use. **RESULTS:** AP was found in 38% of the sample and it was not related with gender, age, severity of psychiatric symptoms, quality of life and social behavior problems. Antipsychotics monotherapy costs were related with the type of antipsychotic: Atypical antipsychot-