indirect comparison techniques. **METHODS:** All twelve-week randomised controlled trials of olanzapine, quetiapine and aripiprazole conducted in monotherapy or in adjunct therapy were identified through a literature review. Five monotherapy studies were found, allowing the comparison of asenapine versus quetiapine and aripiprazole, with olanzapine and haloperidol as common references, using Bucher's method (Bucher et al., J Clin Epidemiol 1997). One twelve-week and four six-week placebo-controlled adjunctive therapy trials were identified, enabling the comparison of asenapine to olanzapine, quetiapine and aripiprazole through pairwise comparisons using placebo as a common reference. The outcomes used for comparison were the Young Mania Rating Scale (YMRS) change from baseline, YMRS response and remission rates. **RESULTS:** In monotherapy, the differences of mean YMRS change from baseline to week 12 between asenapine versus quetiapine and aripiprazole were 0.10 (p=0.959) and 1.76 (p=0.342), respectively. Relative risks for response and remission were close to one. In adjunct therapy, the differences of mean YMRS change from baseline to week 6 between asenapine versus olanzapine, quetiapine and aripiprazole were 0.63 (p=0.656), 0.10 (p=0.967) and -0.10 (p=0.946), respectively. Relative risks for response and remission were numerically in favour of asenapine but not statistically significant. **CONCLUSIONS:** The results of these indirect comparisons consistently showed comparable efficacy of asenapine versus the investigated atypical antipsychotics.

PMH8

US GOVERNMENT INITIATIVES FOR SUPPORTING COMPARATIVE EFFECTIVENESS RESEARCH, AN EXAMPLE FROM PROJECT LIBRA

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OBJECTIVES: Reducing hospital readmission rates has emerged as an important strategy for increasing the quality of health care, while reducing the cost of care. An analysis was conducted using an US government-funded tool to investigate the impact of post-hospitalization follow-up on readmissions for depression. **METHODS:** Public (Medicare) and proprietary (MarketScan Commercial, Medicare Supplemental and Medicaid) administrative databases were standardized and linked via a common data model. A web-based tool was developed that captured the logic typically required by CER methods, e.g. searches on drugs, diagnoses, and procedures, application of time constraints, and development of variables for intervention, outcomes and covariates. Patients with a hospitalization for depression and was discharged to home were selected. Additional inclusion criteria were a minimum of one year of enrollment prior to and 60 days of enrollment following discharge. Patient claims histories were searched to determine outpatient visits with 7 and 30 days post-discharge and rehospitalization within 30 days post-discharge. SAS procedures embedded in the tool were utilized for bivariate and multivariate analyses. **RESULTS:** The study included 39,985 patients. Patients with a follow-up visit were slightly older and were more likely to be female. Prior to index hospitalization, patients with follow-up were more likely to have filled an antidepressant or antianxiety medication and had a diagnosis of depression or anxiety pre-index hospitalization. Little difference was found in the rate of pre-period hospitalization. A logistic regression model found that having a follow-up visit within 7 days of discharge was negatively and statistically significantly associated with having a readmission within 30 days (odds ratio = 0.88, CI=0.80 – 0.97, once other factors (demographics, diagnosis, and drug treatment) were controlled. **CONCLUSIONS:** The data model and tool may be leveraged in a similar manner to compare drug and medical treatment options more rapidly and efficiently.

PMH9

PRESCRIBING PATTERNS AND COST OF DRUGS FOR ALZHEIMER'S DISEASE

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OBJECTIVES: Few studies of mental illness in Africa have centered on Alzheimer's disease. The primary aim of the study was to determine the prescribing patterns and cost of drugs for Alzheimer's disease in a South African private health care sector patient population. **METHODS:** A retrospective drug utilization study was conducted. Data were obtained from a South African private medical aid administrator for 2010. The database consisted of 2,126,264 records for medication and procedures. **RESULTS:** A total of only 25 patients (13 females and 12 males) received 114 medicine items for Alzheimer's disease at a cost of R70 794.11 (average cost per item R621.00 (SD=R208.73)). This medicine is relatively expensive, yet not all medical aid schemes pay for medication for Alzheimer's disease. The average age of patients was 72.52 (SD=10.03) years, with ages ranging from 46 to 88 years. Memantine was the most frequently prescribed active ingredient (42.98% of prescribing frequency and 46.35% of cost), followed by donepezil (40.35% of frequency and 41.59% of cost). The average cost per memantine prescription was R669.61, followed by R640.12 for donepezil and R449.35 for galantamine. The different medical aids only paid, on average, 78.86% of the total amount claimed by patients for these medicines. Most prescriptions were claimed between February and June 2010. Average Prescribed Daily Doses (PDDs) of active ingredients were generally lower than their respective Defined Daily Doses (DDDs). The average PDD for memantine was 18.27 mg (DDD=20 mg), for donepezil was 7.07 mg (DDD=7.5 mg) and for galantamine was only 6.95 mg (DDD=16 mg). Most prescriptions for memantine (75.51%) were prescribed in its PDD of 20 mg. **CONCLUSIONS:** The results were generally similar to those of previous South African studies. Studies on larger patient populations are necessary to investigate the cost-effectiveness of the different treatment options.

PMH10

EXPOSURE TO ANTIPSYCHOTIC MEDICATIONS DURING FOUR YEAR PERIODS FOLLOWING TREATMENT INITIATION AMONG CHILDREN UNDER SIX YEARS OLD

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OBJECTIVES: In short term clinical trials antipsychotic medications are well tolerated by children under six years old. While concerns have been raised about the impact of long term exposure on metabolic and cardiovascular health and on the developing brain, little is known about the extent of long term antipsychotic exposure in this age group. This study quantifies antipsychotic exposure over a 4 year period of children who began antipsychotic treatment before their sixth birthday and identifies the variables associated with the risk of long term exposure. **METHODS:** Children were identified who initiated an index episode of antipsychotic treatment before their sixth birthday in Florida's fee for service Medicaid program. Using claims data the medication utilization of these children was tracked during the year before and the four years following the start of their index episodes (pre-index and four post-index periods). Generalized estimating equations were used to identify variables associated with the risk of additional days of antipsychotic exposure. **RESULTS:** Five hundred twenty-eight children were included in the cohort. The mean total days of exposure was 821.9 (±431.9) representing 56.3 % of all days during the four post-index periods. The mean days of exposure to combinations of antipsychotics and other classes of psychotherapeutic medications were 623.8 ±447.6 days. Children with primary diagnoses of pervasive developmental disorders and affective disorders were at greater risk of additional days of exposure than children with ADHD. Exposure tended to be greater among children with indicators of clinical complexity including the presence of secondary diagnoses and the use of other classes of psychotherapeutic medications in addition to antipsychotics. **CONCLUSIONS:** Exposure to antipsychotic mediations was extensive. Although these children may have had complex and severe problems, additional research is urgently needed on the benefits and risks of long term antipsychotic exposure among very young children.

PMH11

PSYCHOTROPIC-RELATED HIP FRACTURES AROUND THE WORLD: A META-ANALYSIS

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OBJECTIVES: Up to one-third of older adults fall each year with medications representing a well-known risk factor for falling. Ultimately, falls that result in injury are the true target of fall prevention and are of interest to healthcare practitioners. Therefore, this meta-analysis focused on evaluating the association of antipsychotic and antidepressant drugs with hip fracture, a common and debilitating fall-related injury. **METHODS:** A search of Pubmed/Medline was conducted from 1966-2010 with key words including "antipsychotic agents", "psychotropic drugs", "antidepressive agents", "aged", and "hip fracture". Inclusion criteria included mean age ≥ 65 years and statistical adjustment or stratification by age and gender. Excluded were studies where hip fractures were not distinguished from other fracture types or authors failed to answer queries for required information. A random effects model was used to calculate summary odds ratios for the specific classes of psychotropic medications. **RESULTS:** Of 166 studies identified, 10 antipsychotic-related studies and 14 antidepressant-related studies met the inclusion criteria. Combined, these studies represent over 70,000 hip fracture cases and approximately 272,000 total subjects from eight different nations and four continents. Summary odds ratios include (95% confidence interval): conventional antipsychotics 1.68 (1.43, 1.99), atypical antipsychotics 1.30 (1.14, 1.49), tricyclic anti-depressants 1.71 (1.43, 2.04), and selective serotonin re-uptake inhibitors 1.94 (1.37, 2.76). Although some studies reported drug-specific risk measures, the availability of drug-specific data was limited. **CONCLUSIONS:** All classes considered in this analysis are associated with an increased risk of hip fracture in older adults. There is a trend towards reduced risk associated with atypical antipsychotics compared to conventional antipsychotics, although this does not reach statistical significance. To minimize the risk of hip fracture in older adults requiring psychotropic medications, further research examining the association of hip fractures to specific drugs within these classes is essential.

PMH12

RISK OF RELAPSE AND HOSPITALIZATION IN THE 2-YEAR OPEN-LABEL TREATMENT OF OUTPATIENTS WITH SCHIZOPHRENIA RANDOMIZED TO OLANZAPINE LONG-ACTING INJECTION OR ORAL OLANZAPINE

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OBJECTIVES: This post-hoc analysis assessed the risk and the factors associated with relapse and hospitalizations during the 2-year treatment of outpatients treated with oral olanzapine or olanzapine long-acting injection (LAI). **METHODS:** We used data of a 104-week multicenter, effectiveness study comparing oral and LAI olanzapine in the treatment of outpatients with schizophrenia (n=524; NCT00320489). Relapse was defined as hospitalization for schizophrenia; a 25% increase from baseline on the PANSS total score (if baseline score >40), a 10 point increase (if baseline score ≤40); a ≥1-point increase from baseline on the CGI-S scale, provided that final CGI-S score was ≥4; deliberate self-injury or injury to others that is associated with worsening of psychosis; or discontinuation from the