

consisted of the direct economic burden of this disease. **CONCLUSIONS:** Serious economic burden has been caused by schizophrenia and increased sharply in China. Indirect cost of schizophrenia is largely more than its direct cost.

#### PMH14 COMPARISON OF MEDICAL COSTS AND UTILIZATION ASSOCIATED WITH USE OF ZIPRASIDONE AND OLANZAPINE AMONG SCHIZOPHRENIA AND BIPOLAR DISORDER PATIENTS

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**OBJECTIVES:** Ziprasidone is increasingly used for the treatment of schizophrenia and bipolar disorder. The purpose of this study is to compare health care costs and utilization associated with use of ziprasidone and olanzapine. **METHODS:** Schizophrenia and bipolar disorder patients who initiated use of ziprasidone or olanzapine between 01/2007 and 12/2010 were identified in the IMS LifeLink™ Health Plan Claims Database. Claims were summarized into treatment episodes, and one-year costs and utilization after the initiation of episodes were analyzed. OLS regressions, general liner models, and two-part models were used to compare various types of costs associated with the use of ziprasidone and olanzapine. Logistic regressions, Poisson regressions, and Hurdle models were used to compare the numbers of emergency room visits and hospitalizations associated with each drug. Lastly, we used various statistical methods to test the sensitivity of our estimates. **RESULTS:** We identified 7,138 (46.93%) ziprasidone episodes and 8,072 (53.07%) olanzapine episodes, and found that patients using ziprasidone were significantly younger (41.50 vs. 45.38) and were significantly less likely to be male (29.81% vs. 44.21%). At baseline, ziprasidone group and olanzapine group differed in total costs and several other components of costs. Benchmark analyses show that use of ziprasidone, when compared to olanzapine, was associated with significantly higher medication costs (\$232,  $p < 0.01$ ) and outpatient costs (\$501,  $p < 0.05$ ), but decreased ER costs (-\$73,  $p < 0.05$ ). Ziprasidone was also associated with significantly fewer ER visits (0.266,  $p < 0.001$ ) and hospitalizations (1.117,  $p < 0.001$ ). Sensitivity analyses suggest these results were robust. **CONCLUSIONS:** While ziprasidone is associated with higher medication costs and outpatient costs, it reduces patients' utilization of ER and inpatient services.

#### PMH15 HEALTH INSURANCE COST OF ALZHEIMER DEMENTIA IN HUNGARY: A COST OF ILLNESS STUDY

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**OBJECTIVES:** The aim of our study is to calculate the annual health insurance treatment cost of Alzheimer dementia disease in Hungary. **METHODS:** The data derive from the financial database of the Hungarian National Health Insurance Fund Administration (NHIFA), the only health care financing agency in Hungary. We analyzed the health insurance treatment cost and the number of patients for the year 2010. The following cost categories were included into the study: out-patient care, in-patient care, CT-MRI, PET, home care, transportation, general practitioner, drugs and medical devices. **RESULTS:** The Hungarian National Health Insurance Fund Administration spent 4.426 billion Hungarian Forint (HUF) (21.266 million USD) for the treatment of Alzheimer patients. The annual average expenditure per patient was 72881 HUF (350 USD) while the average expenditure per one inhabitant was 442 HUF (2.1 USD). Major cost drivers were acute inpatient care (45.8 % of total health insurance costs), chronic inpatient care (28.1 %) and pharmaceuticals (10.4 %). The number of patients with Alzheimer disease was 60.6 per 100000 populations. We found the highest patient number in outpatient care budget (60735 patients), general practitioners (60234 patients) and pharmaceuticals (37724 patients). **CONCLUSIONS:** Alzheimer dementia disease represents a significant burden for the health insurance system. Hospital care (both acute and chronic) is the major cost driver for Alzheimer disease in Hungary.

#### PMH16 TO STUDY THE TREATMENT PATTERN AND COST OF ILLNESS IN BIPOLAR DISORDER PATIENTS IN TERTIARY CARE HOSPITAL IN SOUTH INDIA

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**OBJECTIVES:** To study the treatment pattern and cost of illness in bipolar disorder patients in tertiary care hospital in South India. **METHODS:** A retrospective study was conducted in a tertiary care teaching hospital of South India. Data were collected retrospectively from medical record section from 2012 to 2013 in suitable designed case record form. Data were analysed by using SPSS 20.0. **RESULTS:** Total of 100 cases of bipolar disorder was followed during the study period. Among them 66 were males and 34 were females. The mean age of the study population was found to be 46.2+13.3 years. Among the social history 13 people were alcoholic and 60% of the study population had a family history of known psychiatric disorder. The mean duration of illness of the study population was found to be 21.8+9.8 years. Among the study population 34 patients were diagnosed with mania and 46 patients diagnosed with depression. Mood examination revealed that 38 patients were happy followed by 22 patients were irritable. Affective examinations showed maximum were euphoric. Insight examination showed Grade 1 predominance. The different treatment pattern revealed that all of them were prescribed with mood stabilizer followed by anti-psychotic (93) and hypnotics (86). The average hospitalization cost of the patient was found to be 7477.83 + 5989.67 Rupees with median hospital stay of 7(5) days. The average treatment cost constitutes total 50% of the hospitalization cost. **CONCLUSIONS:** Mood stabilizers and anti-psychotics were the main treatment strategies among the bipolar patients and drug cost consumes 50% of the total cost of hospitalization. Pharmacoeconomic studies plays important role in estimating the total health care burden in bipolar disorders.

#### PMH17 HEALTH INSURANCE COST OF ANXIETY IN HUNGARY: A COST OF ILLNESS STUDY

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**OBJECTIVES:** The aim of our study is to calculate the annual health insurance treatment cost of anxiety in Hungary. **METHODS:** The data derive from the financial database of the Hungarian National Health Insurance Fund Administration (NHIFA), the only health care financing agency in Hungary. We analyzed the health insurance treatment cost and the number of patients for the year 2010. The following cost categories were included into the study: out-patient care, in-patient care, CT-MRI, PET, home care, transportation, general practitioner, drugs and medical devices. **RESULTS:** The Hungarian National Health Insurance Fund Administration spent 13.535 billion Hungarian Forint (HUF) (65.026 million USD) for the treatment of anxiety patients. The annual average expenditure per patient was 13323 HUF (64 USD) while the average expenditure per one inhabitant was 1352 HUF (6.5 USD). Major cost drivers were general practitioners of primary care (43.8 % of total health insurance costs), pharmaceuticals (32.2 %) and outpatient care (12.4 %). The number of patients with anxiety disease was 1014 per 100000 populations. We found the highest patient number in general practitioners of primary care (1015938 patients), pharmaceuticals (774096 patients) and outpatient care (521760 patients). **CONCLUSIONS:** Anxiety represents a significant burden for the health insurance system. General practitioners of primary care and pharmaceutical reimbursement are the major cost drivers for anxiety disease in Hungary.

#### PMH18 DISEASE MANAGEMENT, RESOURCE UTILISATION AND ASSOCIATED COST FOR MODERATE AND SEVERE DEMENTIA PATIENTS IN CHINA: RESULTS FROM A DELPHI PANEL

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**OBJECTIVES:** Resulting from the scarcity of literature on dementia in China, a Delphi panel was used to obtain information on disease management, resource utilisation and associated costs for patients with moderate or severe dementia in China. The panel results were used as input data for a health economic model comparing different alternative strategies for treatment of dementia. **METHODS:** The Delphi panel method was used to leverage expertise of physicians involved in the treatment of dementia (Round-1 interviews with eight interviewees) and hospital administrators (Round-2 interviews with two interviewees). Final Delphi meeting gathered six experts from previous interviewees to reach a consensus. Round-1 interviews collected information of establishing a diagnosis for dementia, dementia disease management and the distribution of patients by severity, dependence and aggressiveness. Round-2 interviews were based on results of Round-1 interviews to collect data on relevant costs. Interviews were done individually without sharing information from other interviewees. Results from two rounds were integrated and shared in the final Delphi discussion. A consensus was reached to obtain the final value or range of values of interest. **RESULTS:** Distribution of independent/non-aggressive, independent/aggressive, dependent/non-aggressive, and dependent/aggressive moderate dementia patients was 70%, 15%, 10% and 5% at time of first diagnosis. Unit costs and resources utilisation, collected for each health state for a cycle of 6-months, showed that severe dependent/aggressive dementia patients required the most time from caregivers (15 hours/day). Moderate dependent/aggressive patients had the highest probability (90%) to be hospitalised. The average stay of hospitalisation was two months. Moderate and severe patients had the same probability of nursing home utilisation (0%, 20%, 80% and 20% for each health state). **CONCLUSIONS:** Delphi panel may be a useful approach to collect data for diseases when they are not published in the literature or when automated health care databases are not available or accessible.

#### PMH19 COST AND RESOURCE USE OF MANAGING MAJOR DEPRESSIVE DISORDER (MDD) IN CHINA

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**OBJECTIVES:** To review studies that investigated the costs and resource use of managing major depressive disorder (MDD) in China. **METHODS:** A structured literature review on published articles in both English and Mandarin languages was conducted. Literature search was conducted using PubMed, Cochrane, Wan Fang, and VIP databases. Articles published between 2000 to 2013 were selected. The inclusion criteria included studies conducted in China, and studies that reported direct and indirect costs in MDD management, including factors that affected these costs, as well as resources used in managing MDD. Four reviewers (two for each language) independently selected and reviewed the articles. Direct cost included costs of MDD treatment (e.g. medication, investigation, hospitalisation, nursing care...etc.); whereas indirect costs included caregiver cost, productivity loss, and mortality (suicide). **RESULTS:** A total of 24 articles in Mandarin and English were selected and reviewed. Based on the review, direct cost for MDD reported ranged from RMB 1,000 to RMB 6,000, whereas indirect cost reported ranged from RMB 2,000 to RMB 51,000. Loss of productivity, when evaluated, accounted for more than 75% of indirect costs. Serotonin norepinephrine reuptake inhibitor (SNRI) incurred the highest direct medical cost compared to selective serotonin reuptake inhibitor (SSRI), followed by tricyclic antidepressants (TCA). The treatment costs for MDD had increased gradually over the years. Some of the common factors affecting the cost of MDD management included treatment duration, payment methods, types of drug prescribed, comorbidity, disease severity and marital status. Studies had shown that most patients first seek treatment in general clinic or hospitals (76%)