

despite adequate treatment. About 30% of patients do not achieve remission after 4 different antidepressant treatment trials (Rush et. Al., 2006). a few studies have examined the economic burden of TRD, but none have investigated the cost associated with more chronic and extensive forms of TRD characterized by non-response to four or more treatment trials. The objective of this study is to compare the direct medical expenditures of TRD patients to chronic MDD patients. **METHODS:** Patients with chronic MDD (defined as 2 or more years of continuous treatment) and patients with very severe TRD (defined as switching, augmentation, or addition of at least four qualifying therapies) were identified in the PharMetrics Patient-Centric Database. Medical resource utilization (MRU) and payer costs per patient per year enrolled in the plan were compared. Patients were matched on duration of enrollment, length of depression, medications taken, and age. Statistical significance was assessed using Student's t-tests. **RESULTS:** The average medical expenditures per TRD (n = 31,803) patient per year enrolled was \$12,260 compared to \$7,619 for non-TRD chronic MDD patients (n = 50,092) (p < 0.001), representing 60.9% higher costs per year. The differences in annual medical expenditures per TRD patient were primarily driven by higher medical and pharmacy MRU (number of services per patient) relative to the chronic MDD group (70.3 vs. 107.6, p < 0.001). **CONCLUSIONS:** Our results demonstrate that TRD patients accrued significantly higher per patient medical costs than MDD patients due to higher medical resource use. These findings suggest that more effective non-pharmacological alternative interventions are needed.

PMH20

#### IMPACT AND COSTS OF HOSPITALIZATION IN SCHIZOPHRENIA

Zeidler J<sup>1</sup>, Slawik L<sup>2</sup>, Fleischmann J<sup>3</sup>, Greiner W<sup>3</sup>

<sup>1</sup>Leibniz University of Hannover, Hannover, Germany; <sup>2</sup>Janssen-Cilag GmbH, Neuss, Germany; <sup>3</sup>University of Bielefeld, Bielefeld, Germany

**OBJECTIVES:** Data concerning impact and costs of hospitalization in patients with schizophrenia are scarce in Germany. Aim of this claims data analysis was to examine the impact and costs of hospitalization in schizophrenia from the perspective of a major statutory health insurance fund. **METHODS:** A nation-wide database was used to evaluate the impact and related costs of hospitalization in schizophrenia (ICD-10 F20.x) between 2004 and 2006. All hospitalised patients were identified based on claims data and schizophrenia related costs for outpatient care, inpatient care, medications, rehabilitation, occupational therapy, and sick leave payments were analyzed before, during and after the hospitalization. **RESULTS:** Data from 4126 hospitalised patients were available, with 46% being female and a mean age of 42 years. Mean length of the index hospitalization was 45.9 days and mean health insurance costs of €9366 incurred during the index hospitalization. In the 3 months before the index hospitalization, average costs of €297 and in the 3 months after the index hospitalization costs of €2322 incurred for outpatient care, inpatient care, medications, rehabilitation, occupational therapy, and sick leave payments. 42.5% of the patients had at least one rehospitalization after the index hospitalization and mean costs of €8710 incurred during the first rehospitalization. In the 4 weeks before the first rehospitalization average costs of €1310 and in the 3 months after the rehospitalization costs of €2834 incurred. With any further rehospitalization costs for the inpatient care itself are decreasing slightly but overall costs for schizophrenia related medical care before and after the event are increasing. **CONCLUSIONS:** Impact and costs of hospitalization in schizophrenia are significant, especially if the costs before and after hospitalization were taken into account. Rehospitalizations are a frequent event in schizophrenia care with high impact on costs. Further studies including the predictors of hospitalization are needed.

PMH21

#### SOCIETAL COSTS OF BIPOLAR DISORDER—THE CASE OF SWEDEN

Ekman M<sup>1</sup>, Granström O<sup>2</sup>, Omerov S<sup>3</sup>, Jacob J<sup>2</sup>, Landén M<sup>4</sup>

<sup>1</sup>Innovus, Stockholm, Sweden; <sup>2</sup>AstraZeneca Nordic MC, Södertälje, Sweden; <sup>3</sup>Northern Stockholm Psychiatry, Stockholm, Sweden; <sup>4</sup>Gothenburg University, Göteborg, Sweden

**OBJECTIVES:** To investigate the health care resource utilization and costs for Swedish bipolar disorder patients. **METHODS:** Registry data on socio-demographics and disease-related resource use during 2006–2008 was collected for 1846 patients with bipolar disorder. Health care visits and hospitalizations were obtained from the Northern Stockholm psychiatric clinic, while data on pharmaceuticals and sick leave were obtained from the national pharmaceutical registry and the Swedish social insurance agency, respectively. Community care data was obtained from the Swedish quality registry for bipolar disorder (Bipolär). Indirect costs were valued according to the human capital method. Costs across mood episodes (manic, depressive, and unspecified) as well as remission were calculated, a patient for which >70 days had passed since the last new episode or inpatient visit, was defined as being in remission. **RESULTS:** The mean annual cost per patient with bipolar disorder was estimated at €24,300 (SEK 242,810) in 2009 prices, of which 23% represented direct treatment costs. The costs per month for active bipolar disorder were €6800 during depression, €6300 during mania, EUR 6,100 during unspecified episodes, and €1500 for patients in remission, a patient who was not hospitalized during 2006–2008 generated a mean annual cost of €18,900, whereas a patient who was hospitalized at least once every year 2006–2008 generated mean annual costs of €67,600. **CONCLUSIONS:** Societal costs for bipolar disorder were more than 3.5 times higher for patients who were admitted at least once per year in 2006–2008 compared to those who were not hospitalized. Monthly costs during a depressive or manic episode were more than 4 times higher than during remission. Attempts to prevent mood episodes by means of effective treatment may not only decrease patient suffering, but also have the potential to dramatically reduce the societal cost of illness.

PMH22

#### RESULTS OF THE GERMAN IDA STUDY—ASSESSING THE FINANCIAL IMPACT OF INFORMAL CARE AMONGST COMMUNITY LIVING DEMENTIA PATIENTS

Schwarzkopf L<sup>1</sup>, Kunz S<sup>1</sup>, Wunder S<sup>2</sup>, Marx P<sup>3</sup>, Lauterberg J<sup>4</sup>, Gräbel E<sup>5</sup>, Holle R<sup>1</sup>

<sup>1</sup>Helmholtz Zentrum München—German Research Center for Environmental Health (GmbH), Neuherberg, Germany; <sup>2</sup>AOK-Bayern /die Gesundheitskasse, Nürnberg, Germany; <sup>3</sup>Pfizer Deutschland GmbH, Berlin, Germany; <sup>4</sup>Federal Association of the AOK, Berlin, Germany; <sup>5</sup>University Hospital Erlangen, Erlangen, Germany

**OBJECTIVES:** Rising life expectancy is associated with increasing prevalence of dementia in European countries. With progressing disease severity patients' call on health care services and social support grows. Several studies stress the burden imposed on family members caring for dementia-patients. However, empirical data assessing the economic value of informal care compared to health insurance expenditures is scarce. Within the cluster-randomized IDA study health care service utilization and informal caregiving time were assessed for 383 community living individuals suffering from mild to moderate dementia. **METHODS:** To examine costs from a health insurance perspective administrative data on all types of services provided were collected and valued with corresponding administrative prices over a three-year period. Patients' caregivers reported in yearly interviews the hours daily dedicated to the patient in care and supervision. The time provided for informal caregiving was valued by applying hourly wages of a nursing service and a domestic help respectively. Total costs and cost components were calculated from societal perspective and payers' point of view and analyzed by relevant subgroups. **RESULTS:** Caring for a home-dwelling dementia-patient amounts annually to around €47,000 from societal perspective with informal care covering nearly 80% of this sum. For a patient with moderate dementia values assigned to informal care are approximately 70% higher than for a person with mild dementia. Health insurance has to spend €10,000 for an average dementia-patient per year, with services for long-term care representing the most costly part. **CONCLUSIONS:** Informal care is the major cost component in care for dementia, and it is strongly rising with disease progression. Changes in family structures and traditional living arrangements thus pose an enormous challenge regarding the future organization of dementia care. To maintain today's care-setting, concepts fostering community-based dementia care and support to family caregivers need to be further developed.

PMH23

#### COSTS OF A COMMUNITY SUPPORT PROGRAM FOR DEPRESSION: RESULTS FROM THE BEAT THE BLUES (BTB) TRIAL

Jurkowitz E<sup>1</sup>, Pizzi LT<sup>1</sup>, Gitlin L<sup>1</sup>, Foley K<sup>2</sup>, Chernet N<sup>1</sup>, McCoy M<sup>3</sup>, Dennis M<sup>1</sup>

<sup>1</sup>Thomas Jefferson University, Philadelphia, PA, USA; <sup>2</sup>Thomas Jefferson University, Newtown, PA, USA; <sup>3</sup>Center in the Park, Philadelphia, PA, USA

**OBJECTIVES:** Literature on the costs of community support programs is scant. Beat the Blues (BTB) is a home support program for depression which involves trained social workers who meet with participants to identify care management concerns, make referrals and linkages, provide depression education, develop tailored action plans to accomplish identified behavioral goals and enhance engagement in pleasurable activities, and teach stress reduction techniques for managing daily stressors (e.g., deep breathing). The primary objective of this study is to assess the cost of implementing BTB in African American elders with depressive symptoms. **METHODS:** The cost analysis is piggybacked onto the parent BTB trial, which employs randomized two-group experimental design (treatment vs. control). Candidates are screened twice for depressive symptoms (PHQ-9 score > 5) to determine eligibility. Participants are randomly assigned to intervention or waitlist control. BTB is administered over 4 months with assessments in both groups at baseline and 4-months. Cost components comprise 4 main categories (Screening, Intervention Delivery, Supervision, and Other). Senior center management and social workers (interventionists) kept detailed logs of time spent conducting each component. The cost of conducting the intervention was calculated as the time spent performing each task multiplied by wage rate of the individual who performed the task. Non-time related cost (material and mileage) was also calculated. **RESULTS:** A total of 166 participants received the intervention. Average cost of BTB was \$342 per person. The most costly aspect of BTB per person was cost of program delivery (\$275), followed by materials (\$48). The least costly aspect of the intervention was time spent supervising interventionists (\$9). **CONCLUSIONS:** This study informs decision makers about the resources required for depression community support interventions, which are not typically reimbursable through private or public health care programs. Results can also inform decision making regarding the costs of such interventions in relation to pharmacological treatments.

PMH24

#### HEALTH CARE UTILIZATION OF MAJOR DEPRESSIVE DISORDER PATIENTS

Myrén KJ, Löfroth E, Dahlberg E

IMS Health, Stockholm, Sweden

**OBJECTIVES:** To analyze the health care utilization by patients diagnosed with major depressive disorder (MDD). **METHODS:** This was a retrospective longitudinal descriptive database study of the utilization of health care by patients with MDD from the South-West region of Sweden (1.5 million inhabitants). All patients who were diagnosed with MDD (ICD-10 F32 or F33) during 2007 were included in the study. All costs from health care visits when an MDD was the primary diagnose were included as well as all cost from all dispensed antidepressant (ATC N06A) drugs. **RESULTS:** A total of 37,445 patients had at least one health care visit with an MDD