ill population has been difficult. **OBJECTIVES:** To explore protective and risk factors for a later severe violent offense (i.e. forensic admission) among the mentally ill (schizophrenics) and to do thorough investigation for appropriate models. **METHODS:** Between 1998–2000, 308 forensic and general psychiatry patients were recruited to case-control study in Canada, Finland, Germany, and Sweden. An innovative greedy naive Bayesian (NB) algorithm P-Course was utilized to search generalized factors from national datasets into a merger model (naive Bayesian fusion). The evidence was assessed with posterior odds (PO) and the predictions with accuracy, diagnostic odds ratio (DOR), area under ROC curve (AUC), Gini coefficient and logarithmic loss (log score). The models were tested using leave-one-out cross-validations and substitution procedures in which data was divided into separate teaching and test sets. **RESULTS:** The most influential predictive risk factors for violent offence include violent behavior prior to the index hospitalization (PO 11.8; 95% credibility interval 5.9–30.3), biological father's conviction (9.4; 4.7–20.0), no use of psychotropic medications before the age of 18 (7.7; 4.3–16.5), and biological father's substance abuse (2.6; 1.7–4.1). The merger model indicates very good discriminative power (DOR from 30.25; AUC from 0.82; Gini from 0.63; log score below 0.65) as well as robustness and accuracy (Canadian 82.5%; Swedish 87.1%) for the test sets. **CONCLUSIONS:** The characteristics of biological father and no use of psychopharmaceuticals before the age of 18 among mentally ill were related to committing a later severe violent offense. The exploration and predictions were carried out with P-Course and the multinational merger NB model indicated high discriminatory power and robustness compared to previous studies.

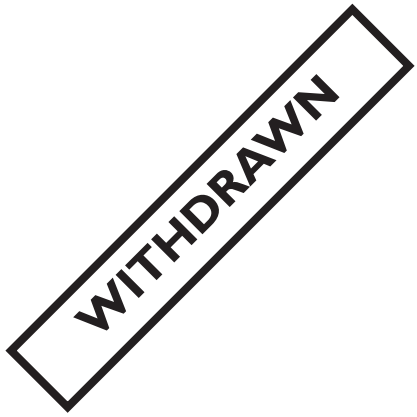
PMH24

ASSESSMENT OF RESOURCE UTILISATION IN ADULTS DIAGNOSED WITH DEPRESSION IN THE UK: A GPRD-BASED STUDY

Bineau S, Saragoussi D, Despiegel N, Toumi M, Milea D, Verpillat P
H. Lundbeck A/S, Paris, France

OBJECTIVES: While the prescription of SSRIs and SNRIs for major depressive disorder (MDD) has increased, resource utilisation has rarely been studied in large populations in real-life settings. The purpose of this study was to assess resource utilisation associated with the prescription of antidepressants in an adult population with MDD in primary care using data extracted from the General Practitioner Research Database (GPRD). **METHODS:** We conducted a retrospective study using the GPRD. Patients diagnosed with MDD aged 18–70 having a new prescription of paroxetine, fluoxetine, citalopram, sertraline, escitalopram, venlafaxine or amitriptyline between January 1, 2001 and September 30, 2003 and not having received antidepressant treatment in the previous six-months were included. Analyses focused on first depressive episodes for each patient. Patient, disease and treatment characteristics, GP visits, referrals and hospitalisations were analysed. **RESULTS:** Information was gathered from over 59,000 patients. Mean age of patients was 39 and 69% were female. 57% suffered from mild depression, 37% moderate and 6% severe. Mean time of a depressive episode was about 6 months. Patients visited a GP on average 10 times per episode. There was a trend between frequency of GP visits and severity per episode (10 for mild, 11 for moderate and 12 for severe). 2% of patients were referred to psychiatric specialists. Compared with patients under SSRIs, there were 80% more referrals under SNRIs and 20% fewer under TCAs. 4% of all patients were hospitalized: 60% more hospitalisations under SNRIs and 40% more under TCAs compared with SSRIs. **CONCLUSIONS:** This GPRD-based study provides better knowledge of medical resource use in depressed patients in the UK. It should promote better prescription strategies and use of antidepressants in primary care.

PMH25



PMH26

RESOURCE USE AMONG PATIENTS WITH SCHIZOPHRENIA IN 5 EUROPEAN COUNTRIES

Leeuwenkamp O[1], Perry R[2], Morlock R[3], Jones E[2], Taylor T[4]
[1]Organon International, Molenstraat, Oss, The Netherlands, [2]Adelphi Group Products, Bollington, Cheshire, UK, [3]Pfizer Inc, New York, NY, USA, [4]Pfizer, Ann Arbor, MI, USA

OBJECTIVES: To assemble data on resource use for patients with schizophrenia across several European countries. **METHODS:** Physicians in 5 European countries who prescribed antipsychotics for ≥15 patients with schizophrenia within the preceding 3 months were invited to complete a questionnaire concerning their patients' clinical status and resource use. Resource use was assessed in terms of frequency of psychiatric hospitalization, length of last completed hospital stay, intensive care unit use, outpatient visits, and number of current medications. **RESULTS:** Data were obtained from 704 physicians treating 6569 patients from France (n = 1492), Germany (n = 1439), Italy (n = 1003), Spain (n = 1310), and the UK (n = 1326). Italy (77%), Spain (75%), and Germany (72%) had larger percentages of patients with at least one psychiatric hospitalization in the previous year than did France (56%) and the UK (55%). Mean length of hospital stay varied significantly across countries, from 19.4 days in Italy to 67.5 days in the UK, and was significantly longer for the subset of patients in whom negative symp-

toms predominated (n = 621; 9.5%) than in the full study population (56.3 vs 50.6 days; P < 0.05). Mean number of outpatient visits related to schizophrenia in the previous 12 months ranged from 3.8 in the UK to 10.8 in France. Mean number of medications per patient ranged from 1.4 in the UK to 1.9 in France. Compared with the entire study population, patients with predominant negative symptoms had more frequent outpatient visits (mean, 8.7 vs 7.9; P < 0.05), fewer emergency department visits (mean, 0.5 vs 0.7; P < 0.01), and no difference in number of medications taken (mean, 0.9 vs 0.9). **CONCLUSIONS:** Resource use in this large, retrospective sample of patients varied across countries and with the presence or absence of predominant negative symptoms.

PMH27

COST-EFFECTIVENESS OF COGNITIVE-BEHAVIOURAL THERAPY (CBT) FOR MENTAL ILLNESS: AN INTERNATIONAL REVIEW

Payne K[1], Myhr G[2]

[1]Caro Research Institute, Montreal, QC, Canada, [2]McGill University, Montreal, QC, Canada

OBJECTIVES: To identify published studies of the cost-effectiveness of cognitive-behavioural therapy (CBT) for the treatment of mental illness, and to review its health economic evidence base. **METHODS:** PubMed, Embase, Psych Info databases (1985–2005; English, French and Spanish) were searched to identify formal cost-effectiveness analyses of CBT using keywords: cognitive-behavioural therapy, interpersonal therapy, counseling, psychoanalysis, anxiety, obsessive-compulsive disorder, depression, depressive disorder, post-traumatic stress disorder, social phobia, bipolar disorder, personality disorder, eating disorder, psychosis, costs, cost analysis, cost-effectiveness, and economic. **RESULTS:** Of 531 abstracts reviewed, 13 cost-effectiveness studies were identified. CBT alone or in combination with medication, was shown to be cost-effective across countries (Australia = 5; USA = 5; UK = 3), and patient populations (mood disorders = 8; anxiety disorders = 4; psychosis = 1), regardless of study design or effectiveness outcome employed. Reported cost-effectiveness ratios (CERS) and incremental CERs were uniformly well below accepted thresholds. Generally, CBT added to usual care contributed little incremental cost due to offsets from reduced health care utilization. Limitations of these analyses include the omission of training and start-up expenditures, the exclusion of indirect costs (lost productivity), relatively short time horizons employed, and variability of response and remission rates. Despite compelling clinical and economic evidence, CBT remains underutilized. Barriers to more widespread use include restrictive mental health funding policy for non-pharmacological treatments, and lack of accredited CBT practitioners. **CONCLUSIONS:** Internationally, CBT represents good value for health dollars spent. Increased utilization of CBT for mental health disorders would improve clinical outcomes and could result in reduced health care expenditures. Further research to better understand long-term clinical and economic outcomes of CBT is warranted.

PMH28

THE MANAGEMENT OF SCHIZOPHRENIA THROUGH CLINICAL PATHWAYS

Panella M[1], Demarchi ML[2], Carnevale L[2], Castignoli G[2], Valsesia R[2], Vanetti M[2]

[1]University of Eastern Piedmont, Novara, Italy, [2]Local Health Authority 13 of Novara, Novara, Italy

OBJECTIVE: To develop an evidenced-based clinical pathway for schizophrenia and to evaluate its effectiveness. **METHODS:** A multidisciplinary team was formed. We identified the processes of the care provided and we identified its possible pitfalls. Then we re-designed the care according to a clinical pathway including the best evidences. To evaluate the impact of the pathway we used process indicators (variation rates in drugs patterns, rate of compliance to the personal management plan, quality of the clinical records), outcome indicators (mental tests and rate of job reinsert, rate of revolving doors, hospital admission) and sentinel events (rate of adverse drug reactions). We performed a concurrent controlled trial to compare the results obtained treating the patients according to the clinical pathway and treating the patients according to the current practice. We used t-test for continuous variables and X2 test for qualitative variables. **RESULTS:** The pathway has been in use for 3 months (expected 12) and 36 patients were treated (19 cases and 17 controls). The implementation of the pathway helped to re-organize 10 clinical and organizational procedures in the care of schizophrenia, including labs and drugs prescription. We observed an improvement in the filling up of the personal management plan (38.46% cases vs. 0% controls; p = 0.005), in the use of mental tests (35.56% vs. 0%; p = 0.006) and a reduction in patients' physical contention (16.67% vs. 69.23%; p = 0.04). Moreover we observed a significant reduction in the use of anti psychotic drugs (16.67% vs. 69.23%; p = 0.04) and of depot therapy (16.67% vs. 60%; p = 0.01), with a prescription pattern more consistent to the evidences. **CONCLUSIONS:** Even though our results are still preliminary we think that the implementation of the clinical pathway improved the quality of the process of care.

PMH29

ACUTE HOSPITALIZATION IN THE ELDERLY:RELATIONSHIP WITH PSYCHIATRIC MORBIDITY AND SOCIAL EQUITY IN HEALTH CARE ACESS IN SINGAPORE

Ng TP[1], Feng L[2], Chiam PC[3], Kua EH[1]

[1]National University of Singapore, Singapore, Singapore, [2]National Universtiy of Singapore, Singapore, Singapore, [3]Institute of Mental Health, Singapore, Singapore

OBJECTIVES: We examined the association of acute hospitalization use by the elderly with psychiatric morbidity and social equity in health care access, taking into account other predisposing, need and enabling factors, in Singapore. **METHODS:** Population-based data from national representative sample (N = 1092) of older adults aged ≥60 in Singapore were used to identify subjects ≥ one acute hospitalization in 12 months prior to interview (N = 136). The associations of acute hospitalization with socio-economic, medical and psychiatric morbidity, health, functional status and behavioral variables were evaluated in multivariate models with adjusted odds ratio (OR). **RESULTS:** Hospitalization use was independently associated with "being retired or unemployed" (OR,3.15;95%cl,1.30–7.63), ≥2 medical conditions (OR,2.88;95%cl,1.66–4.99), SF-12 PCS scores of physical health status (middle tertile, OR,0.39;95%cl,0.23–0.66; highest tertile,OR,0.37;95%cl,0.20–0.67; versus lowest tertile), regular visiting of primary health care provider (OR,1.92; 95%cl,1.10–3.36), and co-morbid psychiatric disorder (OR, 2.76;95%cl,1.20–6.33). Proxy social equity indicators of health care access including self-reported financial limitation to pay for needed health care were not associated with hospitalization use. **CONCLUSIONS:** Acute hospitalization use by the elderly was related to psychiatric morbidity, and apparently un-related to potential social inequity in access to the health care system in Singapore. The complex relationships between psychiatric morbidity and medical and psychosocial factors and hospitalization in the elderly require further studies.