A409

OBJECTIVES: Atypical antipsychotic-induced weight gain and metabolic side effects are key contributors to discontinuations and relapses among patients with schizophrenia. Current treatment guidelines in Scotland recommend aripiprazole for adults with schizophrenia who are at risk of weight gain. Lurasidone is an atypical antipsychotic associated with a favourable metabolic side effect profile. The objective of this study was to conduct a cost-utility analysis to compare lurasidone with aripiprazole, and a budget impact analysis of introducing lurasidone treatment to patients with schizophrenia in the Scottish setting. METHODS: A 10-year Markov model, incorporating a 6-week acute phase and a maintenance phase across three health states (stable on treatment, stable not on treatment, and relapse), was constructed. Baseline risks of discontinuation and relapse were derived from lurasidone clinical studies. Relative efficacy was taken from indirect comparisons. Costs included: drug therapy; relapse; outpatient; primary and residential care. Utility estimates were taken from literature. The budget impact analysis considered the difference between the acquisition cost of lurasidone per patient per year (PPPY) and the acquisition costs PPPY of medicines estimated to be displaced by lurasidone, and assumed that the uptake rate of lurasidone would be approximately 66% of that seen for aripiprazole in its first five years in the UK. **RESULTS:** Lurasidone yielded a cost saving of £3,554 and a small quality-adjusted life-year (QALY) improvement compared with aripiprazole. Deterministic sensitivity analysis indicated that results were sensitive to relapse rates. Probabilistic sensitivity analysis suggested that lurasidone had the highest expected net benefit at all willingness-topay thresholds. Lurasidone acquisition cost was £1,183 PPPY; the cost of displaced medicines was £1,182 PPPY. Lurasidone was therefore a budget neutral treatment option. CONCLUSIONS: Our analyses indicate that lurasidone is a clinically and cost-effective treatment option, which should have limited impact on prescribing budgets, when compared with aripiprazole.

## PMH16

# PERCENTAGE PRICE VARIATION AMONG ANTIDEPRESSANT DRUGS IN INDIAN MARKET: AN ECONOMIC PERSPECTIVE

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**OBJECTIVES:** To calculate the variation in the drug cost involved in the treatment of depression during 2013-2015. **METHODS:** Standard Treatment Guidelines (STG), 4th edition were perused to understand the management of depression. Current Index of Medical Specialities (CIMS) Oct. – Jan. 2015 issue were used to capture the price of drugs. Annual cost of drug treatment and its variation was studied. **RESULTS:** According to STG, drugs needed for the treatment of depression includes Fluoxetine or Sertraline or Escitalopram or Venlafaxine or Mirtazapine or Imipramine or Amitryptylline. If we initiate the treatment with Fluoxetine 20mg OD, then the minimum and maximum cost of treatment was found to be Rs.986-1789 annually. A total of 81% variation was observed in its minimum and maximum cost. Likewise, if the treatment is initiated with Amitryptylline 75mg OD, then we observed a variation was noted for Escitalopram 10mg OD. **CONCLUSIONS:** A maximum of 3 fold variation was noted in the minimum and maximum cost of Amitryptylline. In Indian market a huge price variation exist, which is needed to regulate in order to maintain uniformity.

## PMH17

# THE ACTUAL COST OF A "FORCED SWITCH" OF PSYCHIATRIC PATIENTS TO A NEW THERAPY: A MARKOV CHAIN – MONTE CARLO SIMULATION Anelli M, Puglisi R

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OBJECTIVES: The low reimbursed price of some "typical" antipsychotics could lead pharmaceutical companies to withdraw them from a given market, as a consequence of an unfavorable cost/revenue ratio. Aim of this work was to evaluate the clinical and economic implications of such an occurrence, i.e. of the "forced switch" of stable psychiatric patients. METHODS: A Markov model was developed to identify all the possible scenarios related to the transition process from chlorpromazine and haloperidol to quetiapine (as possible examples). To replicate the "history" of a large number of hypothetical individual patients, a Monte Carlo simulation was performed. The outcomes of the switching and their impact were assessed using the estimated mean frequencies of the "lost to follow-up", "died" and "stable condition" states, plus the estimated overall number of visits and ADRs. Transition probabilities and costs, from the perspective of NHS, were taken from published literature. A sensitivity analysis was also performed. **RESULTS:** The "work" runs were performed with 500 cohorts of 2000 subjects each, the simulations reached convergence after 26 cycles (corresponding to one year). Data analysis allowed to infer that 91% of the patients in treatment with chlorpromazine and haloperidol would be in stable conditions after one year from switching to quetiapine and that the incidence of ADRs would be 24 for 100 patients. During the first year of treatment each patient would return to the prescribing physician between 2-3 times. The "once-only" direct cost of the transition would be 1.5 - 2.5 million euros in Italy, followed by 5-7 million per year for new drug costs. CONCLUSIONS: This simulation confirms that, for both patients and NHS, "staying" with the present therapy would represent a better and more cost effective solution than switching, even if a higher reimbursed price were to be granted.

#### PMH18

#### OBSERVATIONAL STUDY OF RESOURCE USE AND COST OF ALZHEIMER'S DISEASE IN EUROPE (GERAS) - 18-MONTH RESULTS FROM THE FRENCH COHORT Rann T<sup>1</sup> Vellas R<sup>2</sup> Andrien S<sup>2</sup> Chartier F<sup>3</sup> Baraille 1<sup>3</sup> Belger M<sup>4</sup>

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**OBJECTIVES:** To describe 18-month health care resource use and costs associated with Alzheimer's disease (AD) for patients and caregivers in France, stratified by AD severity at baseline. **METHODS:** 18-month, prospective, multi-center, cohort study conducted in France, Germany and UK. Enrolled outpatients were >55 years, diagnosed with probable AD (NINCDS-ADRDA) and had an informal caregiver available.

Patients were categorized according to baseline disease severity using MMSE score: mild (21-26), moderate (15-20), moderately severe/severe (<15). Costs associated with patient and caregiver health care, patient social care and informal care were evaluated using information from the Resource Use in Dementia instrument (RUD) and the data collection form. The primary objective was the estimation of total cost over the 18 months period. Total cost was estimated by applying country-specific unit costs. Supervision time and caregiver medical costs were excluded from the base case analysis. Imputation methods were used for missing cost data. RESULTS: 419 patients were enrolled (2010-2011) in 33 centers in France, 289 (69%) remained in the study at 18 months. Reasons for discontinuation were subject institutionalization (n=65), death (n=21) or other reason (n=44). Total mean cumulative costs over the 18-month period were estimated to be respectively 24140€ (21561-26863), 34287€ (30357-38939) and 44171€ (40050-48755) for mild, moderate and moderately severe/ severe patients (p-0.001) with caregiver informal care cost accounting for approxi-mately half of the total costs (52%, 53%, 51% respectively) (excluding supervision time). Mean overall monthly caregiver time increased over the 18-month period in each severity group, mainly driven by supervision time without significant difference between severity groups in terms of change from baseline. **CONCLUSIONS:** This longitudinal study showed that costs increase with AD severity. Informal care cost represents the largest part of total societal cost at each intermediate time point.

#### PMH19

# THE ECONOMIC BURDEN OF MENTAL DISORDERS IN KOREA

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OBJECTIVES: In recent years, mental health problems have increased and people with mental disorders become more prevalent. This study aims to estimate the economic burden of people with mental disorders in Korea. METHODS: The study evaluated the economic burden for people with mental disorders between 2008 and 2011 by sex and age. Direct and indirect costs were estimated using a prevalence based approach and calculated based on the four nationwide databases for people with disabilities(Korea National Health Insurance Corporation, the National Disability Registry of Ministry of Health and Welfare, the Korea National Statistical Offices' records of cause of death, and National Survey on Persons with disabilities). The direct costs stem from both primary medical and non medical expenditures directly associated with mental disorders. The indirect costs are estimated based on costs of lost productivity due to morbidity and premature mortality by applying a 3% of discount rate. RESULTS: The results showed increases in both the prevalence of mental disorders by 1.2 times(from 67,126 to 83,035) and total economic burden by 1.6 times(from \$349.2 million to \$562.6 million) during 2008-2011. The proportions of direct costs over total economic burden were 89% (\$310.9 million) in 2008 and 91% (\$512.0 million) in 2011 and the proportions of indirect costs were 11%(\$38.4 million) and 9%(\$50.6 million) respectively. In addition, direct costs for male were 1.4 times higher than direct costs for female. The highest total socioeconomic costs(\$134.8 million~\$201.4 million) were incurred by people aged 40-49 years. CONCLUSIONS: The prevalence and economic burden of mental disorders associated with direct costs increased for the years 2008 and 2011 in Korea. These findings provide underlying evidence for mental health care improvements and future studies are needed to investigate pharmacological and other social costs for mental disorders.

# PMH20

# COSTS OF MENTAL DISORDERS IN POLAND AND THEIR COMPLICATIONS Lesniowska J

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OBJECTIVES: Mental disorders constitute a major health problem with severe complications and a significant impact on quality of life. This study is the first comprehensive study on the direct and indirect costs of mental disorders (schizophrenia, bipolar affective disorder, depressive episode, recurrent depressive disorder and reaction to severe stress, and adjustment disorders) and associated complications in Poland. METHODS: In order to estimate the direct medical costs of mental disorders and their complications, including the costs of outpatient consultation, hospitalization, rehabilitation, and drugs, data from the National Health Fund were used with related etiological fraction calculus. Indirect costs embraced costs of lost productivity due to absenteeism and inability to work (handicap) caused by these diseaeses, and costs of lost productivity due to the premature mortality. They were calcu-lated upon Social Insurance Institution and Central Statistic Office datasets using human capital method. RESULTS: Mental disorders is a cause of significant sickness absence and incapacity for work and therefore is associated with a growing productivity decline in Poland. The share of indirect costs consitute almost 70% of total costs and indirect costs amounted to 760 mln EUR. The highest direct costs are associated with treatment of mental disorders-related complications. CONCLUSIONS: The results of this study show that indirect costs can be higher than direct costs, and therefore cannot be ignored in health care decision-making processes. A major part of the total cost of analyzed mental disordes is indirect costs caused by productivity losses due to absenteeism and inability to work (65%). Most of these disorders can be successfully treated. The use of health care resources should be planned not only to cut direct costs of treatment but also to consider the social impact of the disease, through effective treatment to minimize indirect costs.

## PMH21

# THE ECONOMIC BURDEN OF PHARMACEUTICALS IN PEOPLE DIAGNOSED WITH DEPRESSION, ANXIETY-RELATED DISORDER AND SUBSTANCE USE IN AUSTRALIA

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**OBJECTIVES:** Mental and behavioural disorders contributed 12.9% of the total burden of disease in Australia, and pharmaceuticals are recommended as treatment