Abstracts

**PMH 1**

RETROSPECTIVE ECONOMIC EVALUATION OF MIRTAZAPINE, VENLAFAXINE XR AND SERTRALINE IN A MANAGED CARE POPULATION

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OBJECTIVE: To compare the depression-related health care expenditures among patients receiving mirtazapine, venlafaxine XR and sertraline in a managed care setting.

METHODS: Pharmacy and medical claims were obtained for patients in three major health plans, for three months prior to and six months after their initiation of antidepressant therapy. Patients included in the study were 18 years or older; had a primary diagnosis of depression; had no depression-related costs in the pre-index period; had at least two prescriptions for the study antidepressant in the post-index period; were continuously eligible during the study period, and had no claims for substance abuse, schizophrenia or bipolar disorder. Cost comparisons were estimated using multivariate regressions after controlling for demographic and plan characteristics.

RESULTS: Median depression-related costs after index date for patients prescribed mirtazapine (n = 182), venlafaxine XR (n = 469) and sertraline (n = 4617) were $344, $374, and $326, respectively. Treatment with venlafaxine XR was associated with 11% higher (p = 0.025) total costs compared to treatment with mirtazapine. There was no statistically significant difference in total depression-related costs between mirtazapine and sertraline (p = 0.072). Similar results were obtained when pharmacy costs were used as a dependent variable in the multivariate model.

CONCLUSIONS: Compared to sertraline and mirtazapine, venlafaxine XR was associated with significantly higher depression-related total costs. Treatment with mirtazapine was associated with higher depression-related total costs, but the results were not statistically significant.

**PMH 12**

THE COST OF TREATING SCHIZOPHRENIA IN ROUTINE CLINICAL PRACTICE: RESULTS FROM THE CANADIAN NATIONAL OUTCOMES MEASUREMENT STUDY IN SCHIZOPHRENIA (CNOMSS)

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OBJECTIVE: Schizophrenia costs between $ CDN 1.17 to 2.94 billion, annually. The objective of this analysis was to quantify the costs of treatment for patients receiving clozapine (CLZ), olanzapine (OLZ), quetiapine (QUE) or risperidone (RIS) as antipsychotic monotherapy.

METHODS: CNOMSS is a prospective, longitudinal, naturalistic study involving 456 patients from 32 community and academic sites across Canada. Patients completed a monthly resource-use questionnaire detailing the quantity of health-care resources accessed during the previous month. This study included 316 patients (67 CLZ, 118 OLZ, 28 QUE, 103 RIS) who had used an atypical antipsychotic as continuous monotherapy since entry into the study. Each patient’s mean monthly cost of care was determined. Analysis of covariance was used to compare costs, adjusting for demographic and disease-specific factors.

RESULTS: The unadjusted cost of care per patient-month was $2,305 for CLZ, $1,046 for OLZ, $644 for QUE, and $533 for RIS. Inpatient costs were the greatest contributors to total costs for CLZ (51%) and QUE patients (43%), while outpatient costs comprised the greatest portion of OLZ (34%) and RIS (44%) treatment costs. From the model, drug costs were higher in CLZ ($415, p < .001) and OLZ patients ($314, p < .001) versus RIS-treated patients ($145). No difference in drug costs was detected between RIS and QUE ($160, p = 0.632). Adjusted lab/diagnostic costs (p < .001), psychiatric day care (p = 0.013), psychiatric nursing (p = 0.001), specialists (p = 0.031), and inpatient costs (p = 0.005) were greater in CLZ patients versus RIS-treated patients. Compared to RIS, the adjusted cost of accessing social workers was also greater for both CLZ (p = 0.003) and OLZ (p = 0.091) patients.

CONCLUSION: The results of this analysis indicate that, even after adjustment for demographics and disease severity, treatment with clozapine is the most costly atypical monotherapy, while from a budgetary perspective, risperidone was the least expensive drug treatment.

**PMH 13**

THE DIRECT COST OF RISPERIDONE VERSUS HALOPERIDOL THERAPY FOR CHRONIC SCHIZOPHRENIA IN POLAND

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OBJECTIVE: The novel antipsychotics in comparison with old ones turned out to have similar clinical efficacy, produce less adverse effects, increase quality of life, reduce hospital stay with subsequent shift in resources towards community care. However, in Poland drug costs result in substantial percentage of direct health care costs and cost-effectiveness of novel antipsychotics can be questionable. A decision analysis model was used to evaluate potential clinical and economic consequences of using oral risperidone versus haloperidol in chronic schizophrenic Polish patients.

METHODS: A decision analysis model based on a three month Markov cycle tree was implemented through a time horizon of five years. The probability parameters for
the model (relapse rates, drop-out rates, switching to other antipsychotics, adverse effects and other transition probabilities) were obtained from literature. The clinical management pattern and cost of therapy in various model states reflected treatment practice for Polish schizophrenic patients. The model was directed by clinical guidelines issued in 1997 and adjusted to current clinical practice. The costs, calculated from the sum of the charges applicable to each of the management situations over time, were expressed in 2000 PPP USD values. Bootstrapping technique was used to evaluate the 95% CI for mean cost of therapy with both alternative drugs.

RESULTS: The model revealed 11% higher lower relapse among risperidone patients as compared with haloperidol patients. The mean cost of therapy with risperidone equaled 11,412 USD. First line treatment with haloperidol resulted in average cost of 11,154 USD. The difference between both therapies tested by bootstrapping techniques was not statistically significant.

CONCLUSION: The therapy costs with risperidone and haloperidol are comparable in Polish clinical and economic settings. Higher clinical effectiveness of risperidone produces savings, thereby balancing drug cost.

PMH 14

ANTIPSYCHOTIC COMPLIANCE EVALUATION — A POPULATION-BASED, MANAGED-CARE STUDY OF PERSISTENCE WITH INITIALLY PRESCRIBED ANTIPSYCHOTIC MEDICATION

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OBJECTIVE: To evaluate whether 6-, 9-, and 12-month rates of persistency (long-term compliance) with initially prescribed antipsychotic monotherapy translate into cost savings.

METHODS: We identified 220 newly diagnosed psychotic patients from approximately 180 managed care organizations who were initiated on quetiapine monotherapy during an 18-month period. Patients were randomly selected and matched by study date to populate three comparator groups: a haloperidol group; a risperidone group, and patients initiated on any atypical agent except quetiapine. Patients were tracked for at least one year to identify whether they remained on monotherapy, added to the therapy, switched, or discontinued it. Psychiatric costs were aggregated by service type. Analyses included tests of proportions for rates, Cox proportional hazard models for time, and linear regressions for cost.

RESULTS: At six months, 62.73% of quetiapine patients remained on monotherapy vs 33.51% of haloperidol patients (p < .01), 44.60% of risperidone patients (p < .01), and 41.57% of the composite cohort (p < .01). At nine months, 47.73% of quetiapine patients remained on monotherapy vs 23.71% of haloperidol patients (p < .01), 38.97% of risperidone patients (p = 0.06), and 32.78% of the composite cohort (p < .01). At one year, 35.45% of quetiapine patients remained on monotherapy vs 13.40% of haloperidol patients (p < .01), 31.46% of risperidone patients (p = 0.37), and 26.13% of the composite cohort (p = 0.01). All three comparisons were statistically different; median values were 220 days for quetiapine, 90 for haloperidol (p < .01), 159 for risperidone (p = 0.02), and 141 for the composite cohort (p < .01). Annual costs were reduced by $4.39 per additional day (p < .01) of persistency with the initially prescribed antipsychotic. Combining multivariate results shows cost savings for quetiapine of $570.70/year per patient compared with haloperidol, $250.23/year per patient compared with risperidone, and $307.30 if quetiapine were the atypical antipsychotic of first choice.

CONCLUSION: When quetiapine is the first-line therapeutic choice, more patients remain compliant, and cost savings result.

PMH 15

THE IMPACT OF ALCOHOL ABUSE ON EMPLOYMENT IN SWITZERLAND

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OBJECTIVE: The purpose of this article is to assess the impact of alcohol abuse on employment in Switzerland. We used the database from the Swiss Health Survey 1997 to determine the incidence of excessive alcohol consumption on unemployment and productivity at work. To date, it would appear that this data has never yet been used in order to analyze such a link.

METHODS: Our approach to the impact of alcohol abuse on unemployment is traditional and resorts to a probit model of the probability of being unemployed according to variables relating to health and socio-economic status. On the other hand, we consider that alcohol consumption can have a different impact on income depending on consumption thresholds. To determine these thresholds, we adopted the approach by Tsay (1989) that implies the convergence of the recursive Student-t statistics of the estimated coefficient related to the variable “ALCOHOL” if the model is linear. If this is not the case, the model possesses two or more regimes (determined by ruptures of the recursive t).

RESULTS and CONCLUSION: Concerning unemployment, and for men and women alike, a very high consumption of alcohol has a positive impact on the probability of becoming unemployed. Regarding the effect of alcohol consumption on earnings, we find the same results as the majority of authors, but with a multiple regimes model. Thus, for men, the daily consumption of at most one glass of an alcoholic drink has a positive impact on their income. Beyond this quantity the effects are null, but two sub-regimes are detected with different specifications. For women, alcohol consumption has a positive effect on their salary below 2.5 alcohol units per day, and has no effect beyond this.