Abstracts

SIONS: Medical treatment costs in the year after initiation on duloxetine decreased by a greater amount among duloxetine patients with greater persistence compared to those who discontinued early. The findings underscore the importance of sufficient length of therapy for major depressive disorder.

THE ECONOMIC IMPACT OF ARIPIPRAZOLE AMONG PERSONS WITH SCHIZOPHRENIA IN MEXICO

METHODS: The economic impact of treatment with aripiprazole was estimated using a Markov simulation model using TreeAge Pro 2009 software. The model consists of six 6-week cycles. Clinical response is defined as ≥20% reduction in Positive and Negative Syndrome Scale total scores (PANSS-T) from baseline. Responders can exist in any of the following health states at the end of any cycle: Response with no AEs or Response with mild-to-moderate AEs. A mixed model was used to compare outcomes on utilities. Treatment costs were calculated using previous methods. A mixed model was used to compare outcomes on utilities. The mean time patients spent as responders with no AEs or responders with mild-to-moderate AEs was estimated to be 5.74 cycles (241.9 days) with olanzapine compared to 5.96 cycles (250.3 days) and 6.17 cycles (259.1 days) with haloperidol and olanzapine treatments, respectively. The mean monthly treatment costs were $2521, $2424 and $2292 for iloperidone, haloperidol and olanzapine, respectively. CONCLUSIONS: Using a Markov simulation model, olanzapine was more effective than either iloperidone or haloperidol with associated lower costs. Patients spent on average less time as responders with olanzapine treatment compared to haloperidol. These results may be of use when determining the most cost-effective treatment strategy for acute schizophrenia.

THE COST-EFFECTIVENESS OF EARLY RESPONDERS VERSUS EARLY NON-RESPONDERS TO ATYPICAL ANTIPSYCHOTIC THERAPY

METHODS: Published literature and clinical expert opinions were used to populate a Markov simulation model using TreeAge Pro 2009 software. The model consists of six 6-week cycles. Clinical response is defined as ≥20% reduction in Positive and Negative Syndrome Scale total scores (PANSS-T) from baseline. Responders can exist in any of the following health states at the end of any cycle: Response with no adverse events (AEs), Response with mild-to-moderate AEs, Response with severe AEs, Relapse, Dropout and Suicide. Relapse is defined as an increase in PANSS-T scores ≥25% following a response period of more than 3 cycles. Efficacy was based on the average time spent in the Response with no AEs or Response with mild-to-moderate AEs states. Direct costs included hospitalization, side effects, drugs and outpatient care costs. RESULTS: The mean time patients spent as responders with no AEs or responders with mild-to-moderate AEs was estimated to be 5.74 cycles (241.9 days) with iloperidone compared to 5.96 cycles (250.3 days) and 6.17 cycles (259.1 days) with haloperidol and olanzapine treatments, respectively. The mean monthly treatment costs were $2521, $2424 and $2292 for iloperidone, haloperidol and olanzapine, respectively. CONCLUSIONS: Using a Markov simulation model, olanzapine was more effective than either iloperidone or haloperidol with associated lower costs. Patients spent an average less time as responders with iloperidone treatment compared to haloperidol. These results may be of use when determining the most cost-effective treatment strategy for acute schizophrenia.

THE COST-EFFECTIVENESS OF ATYICAL ANTIPSYCHOTICS AS ADJUNCTIVE THERAPY IN ADULT PATIENTS WITH MAJOR DEPRESSIVE DISORDER (MDD)

METHODS: We developed a decision-analytic model to estimate expected outcomes and economic costs in adults with MDD receiving aripiprazole (2-20 mg/day), quetiapine (150 mg/day or 300 mg/day), or olanzapine (6-18 mg/day) as a fixed-dose combination with fluoxetine (50 mg/day) as adjunctive therapy to ADT. Cost-effectiveness was assessed in terms of the expected difference in costs of MDD-related care to the expected difference in clinical response ≥20% reduction from baseline in the Positive and Negative Syndrome Scale (PANSS) total score over 12 weeks (i.e., cost per additional responder). Expected costs of MDD-related care included study medication, and monitoring and treatment of adverse events. Model parameters were estimated using data from Phase III trials and published literature. RESULTS: With ADT alone, the expected rate of clinical response at 6 weeks was estimated to be 30%. Adjuvative therapy with aripiprazole, quetiapine 150 mg/day, and olanzapine was estimated to increase clinical response at 6 weeks to 49%, 34%, 18%, and 45%, respectively. Costs of MDD-related care per responder were $1714 for ADT alone, $714 for aripiprazole, $499 for quetiapine, $496 for quetiapine 150 mg/day, $606 for quetiapine 300 mg/day, and $649 for olanzapine. Cost per additional responder (vs ADT) was estimated to be $2798 for aripiprazole, $7996 for quetiapine 150 mg/day, $5706 for quetiapine 300 mg/day, and $3324 for olanzapine. The cost-effectiveness of each antipsychotic relative to the estimated rate of clinical response at 6 weeks and the cost of adjuvative therapy: Adjunctive therapy with aripiprazole substantially increases clinical response at 6 weeks. Cost per additional responder is lower for aripiprazole than quetiapine or olanzapine.
tion cost compared to generic risperidone. CONCLUSIONS: Treatment of early responders was more cost-effective than the treatment of early non-responders to atypical antipsychotic therapy. The treatment of early non-responders who switched to olanzapine was more cost-effective than treatment of early non-responders maintained on generic risperidone.

PMH52

ECONOMIC ANALYSIS OF ESICALTALOPRAM (GENERIC DRUG) IN MAJOR DEPRESSIVE DISORDER (MDD) Jung J1, Bates R2

OBJECTIVES: The purpose was to conduct an economic analysis of escitalopram (generic drug) vs. sertraline and venlafaxine in the treatment of major depressive disorder (MDD) in Poland. METHODS: Due to lack of statistically significant differences in comparisons of escitalopram with sertraline and escitalopram with venlafaxine, economic profitability estimation was conducted as a cost-minimization analysis. A Markov decision-making model was used with the assumption of a 6 month time horizon. RESULTS: The expected utility possibly gained is estimated based on assumption of different values of quality of life (QOL) for the decompensation. The utility of prevention for the decompensation of heroin addiction may be further increased. Ten-year cost of treatment of one patient using escitalopram in the 6 month time horizon is 12.71 PLN more expensive than sertraline and 135.93 PLN cheaper than venlafaxine. One-way sensitivity analysis conducted for comparison of escitalopram versus sertraline showed that results were sensitive on the prices of medicaments. The sensitivity analysis conducted for comparison of escitalopram versus venlafaxine showed the stability of basic results. Therapy with escitalopram is cheaper than with venlafaxine for all parameters taken into account in the sensitivity analysis. CONCLUSIONS: Escitalopram (generic drug) is cost comparable to sertraline and cheaper option of treatment in comparison with venlafaxine in the treatment of major depressive disorder in the 6 month time horizon.

PMH53

ESTIMATION OF UTILITY GAINED FROM METHADONE MAINTENANCE TREATMENT FOR OPIOID DEPENDENCE Lam A1, Wang J2, Huang C1, Chen P2

OBJECTIVES: Opioid addiction is a chronic brain disease with severe withdrawal symptoms and decompensated condition in the vicious circle of compulsive drug seeking behavior, including needle sharing, psychosocial dysfunction, and criminal acts due to financial decompensation. Methadone maintenance therapy is the service under the concept of harm reduction. We analyzed the estimated utility of prevention in the implementation of methadone maintenance therapy introduced in Taiwan since 2006. METHODS: By using the methadone registry data and the estimation of incidence rates of decompensation with versus without methadone maintenance, the expected number of decompensated cases reduced by harm reduction can be calculated. The utility possibly gained is estimated based on assumption of different values of quality of life (QOL) for the decompensation. RESULTS: Based on the estimation of the registry of Ministry of Justice and estimations of the Center for Diseases Control, the number of heroin addicts in Taiwan was about 100,000, with a total of 15,000 regularly in prison. The yearly number of methadone registry cases reached 15,100 by the end of 2008. Assuming that annual incidence rates of decompensation were about 0.1 and 0.7 for heroin addicts with and without methadone therapy, then the annual expected number prevented by such treatments would be 9000 with a possible gain of utility of 1800 and 4500 QALY (quality-adjusted life year), respectively, depending on the reduced utility of 0.2-0.5 for the QOL among decompensated cases. CONCLUSIONS: The annual cost for administration of methadone program was about 40,000 NTD, which leads to an incremental cost of 66,640 to 166,600 NTD (1 USD = 32 NTD) per QALY, without counting the cost of possible harm produced to the society by decompensated behaviors. With improved accessibility of methadone maintenance therapy, the utility of prevention for the decompensation of heroin addicts may be further increased.

PMH54

ECONOMIC EVALUATION OF ESICALTALOPRAM TO TREAT MAJOR DEPRESSIVE DISORDER Lasheng J1, Beauchemin C1, Legault M1

OBJECTIVES: Major depressive disorder (MDD) is a psychiatric condition principally characterized by depressive mood, loss of appetite, decreased interest in daily activities, sleep, behavioral or attentional disorders, diminution of energy, and feelings of guilt. Because MDD is associated with substantial health care costs and productivity losses, it wields a considerable economic impact. The aim of this study was to assess, in the Canadian context, the economic impact of escitalopram in the treatment of MDD. METHODS: A cost-utility analysis was performed over a one-year time horizon from societal and health care system perspectives in Canada. A decision tree was developed to compare the cost per quality adjusted life year (QALY) associated with the use of escitalopram and citalopram. The decision tree, which included patients with MDD who had received escitalopram or citalopram as initial treatment, takes into account the probability of initial and subsequent treatment remission, persistence with treatment, relapse attempts, and of suicide-related death. Costs included were those of the antidepressant drugs, medical visits and hospitalizations, and those associated with remission/non-remission, relapses, suicide attempts and suicide-related deaths. Costs related to productivity loss and societal costs associated with suicide-related deaths were also included in the analysis with the societal perspective. Utility values associated with remission and non-remission were obtained from the literature. RESULTS: From a health care perspective, the incremental cost-utility ratio of escitalopram compared to citalopram was 0.0085 QALY/patient and entailed fewer costs (–$144,700/patient) compared to citalopram. Deterministic and probabilistic sensitivity analyses confirmed the robustness of the base-case results. CONCLUSIONS: The results of this economic evaluation indicate that escitalopram is a more cost-effective alternative than citalopram to treat MDD from both the health care system and societal perspectives.