COST-EFFECTIVENESS ANALYSIS FOR PHARMACOLOGICAL INTERVENTION AND COGNITIVE BEHAVIORAL TREATMENT (CBT) FOR MAJOR DEPRESSION IN THAILAND

OBJECTIVES: To determine the cost-effectiveness of interventions for major depression in Thailand. METHODS: A microsimulation model was developed to describe the course of disease in individuals. Model inputs included Thai data on disease parameters and costs while impact measures are derived from a systematic review and meta-analysis of the international literature. Results are presented as cost (Thai Baht) per disability-adjusted life-year (DALY) averted. CONCLUSIONS: CBT is the most cost-effective treatment option for both episodic and maintenance treatment. Maintenance treatment is the more cost-effective of the two. However, there is currently a lack of mental health personal, especially psychiatrists and psychologists, who would be expected to deliver CBT in Thailand. Antidepressant drugs are quite a bit less effective but also less costly than CBT.

COST-EFFECTIVENESS OF TYPICALS, ATYPICALS AND PSYCHOSOCIAL INTERVENTIONS FOR SCHIZOPHRENIA IN THAILAND

Phanthunane P1, Vos T2, Whiteford H1, Bertram M1

1University of Queensland, Brisbane, QLD, Australia; 2The University of Queensland, Brisbane, Queensland, Australia

OBJECTIVES: To determine the optimal treatment package, including drug and non-drug interventions, for schizophrenia in Thailand. METHODS: A Markov model was used to evaluate the cost-effectiveness of typical antipsychotics, general supportive care, and family interventions. Health outcomes were measured in disability adjusted life-years. We considered health outcomes from a change in disease severity; extrapyramidal symptoms and weight gain as side effects; and a reduction in suicidality (for clozapine only). Intervention costs included treatment cost, hospitalization cost as well as time and travel cost of patients and families. Uncertainty was evaluated using multivariate Monte Carlo simulation. As a generic version of risperidone is expected on the market soon, a sensitivity analysis of varying costs of risperidone was undertaken. RESULTS: The cost-effectiveness results indicate generic risperidone, assuming a cost of 4 baht per 2-mg tablet will improve health outcomes and save costs of risperidone therapy by reducing treatment-seeking for typical drugs. The ideal combination of treatments is risperidone as first line treatment (dominant intervention), adding family interventions for all patients (Incremental cost-effectiveness ratio of 2000 baht/DALY) and adding clozapine to severe patients (estimated 33% of patients). This addition adds an incremental cost-effectiveness ratio of 1,900,000 baht/DALY, which is still less than three times GDP per capita. CONCLUSIONS: The introduction of generic risperidone will lead to more efficient outcomes and lower costs if it can be produced for less than 10 baht per 2-mg tablet. Providing family interventions for all patients and treating more severe patients with clozapine can further improve outcomes of Thai patients with schizophrenia in a cost-effective manner.

MENTAL HEALTH – Patient-Reported Outcomes Studies

ASSOCIATION OF MEDICATION PERSISTENCE AND HEALTH-CARE UTILIZATION IN HIGH-COST PATIENTS WITH MAJOR DEPRESSIVE DISORDER TREATED WITH DULOXETINE OR VENLAFAXINE XR

Liu X1, Tapper P2, Mullins CD3, Faries D1, Johnstone B1

1Eli Lilly and Company, Indianapolis, IN, USA; 2Eli Lilly and Company, Indianapolis, IN, USA

OBJECTIVES: Adequate duration of antidepressant therapy is essential for the treatment of major depressive disorder (MDD). This study examined the association between medication persistence and hospitalization and emergency room (ER) visit for high-cost patients with MDD in the usual clinical setting. METHODS: In a large US commercial managed-care claims database, 8177 MDD patients (18 to 64 years old) were initiated on duloxetine or venlafaxine XR during the calendar year 2006. All of the patients had no active prescription of study medications for 6 months prior to initiation and had continuous enrollment for 12 months prior to and post-medication initiation. High-cost patients were defined as patients whose total medication costs in the prior year were above the median total costs for all MDD patients in 2005 (n = 5983). After propensity-score matching on observed variables known to affect medication choices, 1714 duloxetine patients and an equal number of venlafaxine XR patients were included for this analysis. Medication persistence was defined as the length of therapy without exceeding a 15-day gap. Logistic regression analyses were used to examine the associations between medication persistence and healthcare utilization in the year following treatment initiation. RESULTS: In the post 1 year, duloxetine patients stayed on the medication significantly longer (119.5 vs. 110.4 days, P = 0.047) than venlafaxine XR patients. Treatment persistence >3 months was significantly associated with reduced odds of psychiatric hospitalization (OR = 0.46, 95% CI = 0.37–0.58), nonpsychiatric hospitalization (OR = 0.77, 95% CI = 0.64–0.92), and ER visit (OR = 0.69, 95% CI = 0.60–0.79). Treatment differences in health-care utilization were not statistically significant. These findings had no essential changes with adjustment for demographics, comorbid conditions, and prior health-care utilization. CONCLUSIONS: Duloxetine therapy appears to have longer persistence than venlafaxine XR for high-cost patients with MDD. Medication persistence >3 months is associated with reduced hospitalization and ER visit.

ADHERENCE AND PERSISTENCE WITH DULOXETINE VERSUS ESCITALOPRAM AMONG HIGH-HEALTH-CARE RESOURCES UTILIZERS WITH MAJOR DEPRESSIVE DISORDER

Tapper P1, Liu X2, Able SL2, Johnstone B1

1University of Pittsburgh, Pittsburgh, PA, USA; 2Eli Lilly and Company, Indianapolis, IN, USA

OBJECTIVES: Adherence and persistence to prescribed medication is important in the management of major depressive disorder (MDD). This study compared adherence and persistence between duloxetine and escitalopram among high health-care users with MDD. METHODS: In a large US commercial managed-care claims database, 10,803 MDD patients (18 to 64 years) who initiated on duloxetine (n = 4542) or escitalopram (n = 6261) during the calendar year 2006 were identified. All of the patients had no recorded prescription of study medications for 6 months prior to initiation and had continuous enrollment for 12 months prior to and post-medication initiation. High-health-care users (duloxetine, n = 3113; escitalopram, n = 3157) were defined as patients whose total treatment costs in the prior 1 year were above the median of total costs for all MDD patients in 2005. Adherence was defined as Medication Possession Ratio (MPR) 20%, and persistence was defined as the length of therapy without exceeding a 30-day gap. Statistical analyses included chi-square test, Wilcoxon rank sum test, multivariate logistic and Cox regression. RESULTS: In the post 6 months (6M) and 12 months (12M), adherence rates were significantly higher for duloxetine-treated patients (6M 54.6% and 12M 40.9%) than escitalopram-treated patients (6M 47.4% and 12M 31.7%) (P-values < 0.001). Duloxetine-treated patients also stayed on the medication significantly longer (6M 115.9 days and 12M 171.1 days) than escitalopram-treated patients (6M 108.4 days and 12M 154.6 days) (P-values < 0.001). Results were essentially unchanged with adjustment for demographics, comorbid conditions, prior medications use, and health-care utilization, resulting in duloxetine therapy maintaining its better adherence and longer persistence versus escitalopram. CONCLUSIONS: Duloxetine-treated patients appear to be more adherent and have a longer stay on the medication than escitalopram-treated patients for high resources users. Further research is needed to examine clinical and economic benefits of better adherence and persistence with duloxetine therapy.

THE VALIDATION OF TWO MEASURES ASSESSING REASONS FOR ANTIPSYCHOTIC DISCONTINUATION AND CONTINUATION FROM PATIENTS’ AND CLINICIANS’ PERSPECTIVES

Faries D, Ashtar-Jamshidi H, Nyhus A, Anderson J, Phillips G, Eli Lilly and Company, Indianapolis, IN, USA

OBJECTIVES: Treatment discontinuation is an important effectiveness measure for evaluating antipsychotic treatment, yet it is typically assessed only on a high level (e.g., "lack of efficacy," "adverse event," or "patient decision"). The RAD-Q was developed as a structured interview assessing patient's perspective regarding specific reasons for antipsychotic discontinuation and continuation and the RAD-Q as a questionnaire assessing clinician's perspective. This study assessed the validity of the RAD measures in a randomized clinical trial. METHODS: The RAD was assessed at baseline (referring to medications prior to the trial) and endpoint (referring to discontinuation/continuation of study drug) in a 12-week schizophrenia clinical trial. To assess its psychometric properties, we examined content validity, discriminate validity, and agreement between RAD scales using endpoint data (N = 158). RESULTS: Of 29 potential primary reasons for medication discontinuation, the most common was insufficient improvement/worsening of positive symptoms (24%) followed by adverse events (22%). A high level of concurrent validity was observed, as 89% of patients discontinuing medication due to "lack of efficacy" (87%, "adverse events") per the RAD-Q. Agreement between RAD scales had lack of efficacy ("adverse events") as a primary or very important reason on the RAD. Patients indicating lack of improvement/worsening of positive symptoms as a primary reason for medication discontinuation on the RAD had significantly less improvement in PANSS positive score than patients not reporting this as a reason. Similar results were observed for the RAD mood items (pain and disinhibition) and functional status (per QLS) as well as for corresponding analyses assessing reasons for continuation. Agreement between the clinician and patient score was high (range 73% to 100%). CONCLUSIONS: This initial psychometric assessment suggests the RAD is a valid tool for gathering detailed information regarding reasons for antipsycho-