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The development and psychometric assessment of an instrument to measure adherence in patients with depression

A. Gabriel^{1,2}, C. Violato^{1,2}. ¹ *University of Calgary, Calgary Health Region, Calgary, AL, Canada* ² *University of Calgary, Calgary, AL, Canada*

Background: Evidence in the literature supports the introduction of interventions to enhance adherence to antidepressant therapy, especially in patients with major depression.

Objective: The objectives of this study are; (1) to examine patient and population-based research on patient's adherence to antidepressants and (2) to develop and psychometrically assess a four-item instrument to measure adherence to antidepressants.

Method: Although causes for non-adherence are multifactorial, drug omissions could occur in one or more, of main four mechanisms; forgetting, carelessness, stopping the drug when feeling worse, or stopping the drug when feeling better. To our knowledge, no reliable valid instruments were developed to measure adherence to antidepressants. Authors modified an instrument that was developed by (Morisky 1986), to measure adherence to antihypertensive drugs. The modified instrument was distributed to experts in depression (n=12), to rate the instruments' relevancy, as a measure of patients' adherence to antidepressants, and was administered to patients (n=63), who are on antidepressants.

Results: The modified instrument has an improved reliability (Chronbachs' Alpha = 0.66), there is 90 %, overall agreement among experts, that the instrument relevant to measure adherence in outpatients with depression, supporting a strong evidence for content validity, and there is also strong evidence for convergent and criterion related validities.

Conclusion: The developed instrument is short, both reliable and valid, and could be completed in approximately 3 minutes. Although it was developed for with outpatients, it could be applied in different sittings, with wide range of psychiatric population who suffer from depression.

P0035

Preclinical mechanisms for the broad spectrum of antipsychotic, antidepressant and mood stabilizing properties of Seroquel[®]*

J.M. Goldstein¹, S. Nyberg², M. Brecher¹. ¹ *Astraeneca Pharmaceuticals LP, Wilmington, DE, USA* ² *AstraZeneca Pharmaceuticals, Sodertalje, Sweden*

Background: SEROQUEL[®] (quetiapine) is an atypical antipsychotic in the dibenzothiazepine class. Clinical studies have demonstrated consistent efficacy in the treatment of schizophrenia, bipolar mania, and bipolar depression. Further clinical results suggest robust efficacy in the long-term treatment of bipolar disorder and major depressive disorder. This broad spectrum of clinical effect has not been fully predicted based on quetiapine's preclinical pharmacology. However, norquetiapine, a recently discovered major active human metabolite of quetiapine, has unexpected properties that may explain the observed clinical antidepressant and mood-stabilizing effects.

Methods: Radioligand binding and functional assays using rat and human tissue were used to characterize receptor interactions. Positron emission tomography (PET) studies performed on cynomolgus monkeys and man explored the relationship between clinically relevant plasma exposures and occupancy at serotonin 5HT_{2A} and dopamine D₂ receptors and the norepinephrine transporter (NET).

Results: Norquetiapine had high affinity for and potently inhibited the NET, a property shared by tricyclic antidepressants and SNRIs but not other atypical antipsychotics at clinically relevant doses. In addition, norquetiapine had moderate-to-high affinity for D₂, 5HT_{1A}, 5HT_{2A}, and 5HT_{2C} receptors and shared some commonality with SSRIs. PET studies confirmed the properties of norquetiapine including occupancy of D₂ and 5HT_{2A} receptors as well as the NET at clinically relevant plasma exposures.

Conclusions: A unique combination of direct and indirect effects at noradrenergic, serotonergic, and dopaminergic receptors by quetiapine and norquetiapine provides a putative mechanism of action for the broad spectrum of clinical efficacy observed with SEROQUEL[®] in psychiatric disorders.

P0036

Early discontinuation on treatment and its consequences in patients treated with Venlafaxine or Escitalopram

L. Ereshefsky^{1,2}, S. Cournau³, K. Hansen³, P. Verpillat⁴. ¹ *California Clinical Trials, Glendale, CA, USA* ² *The University of Texas Health Science Center, San Antonio, TX, USA* ³ *Global Outcomes and Health Technology Assessment, H.Lundbeck A/S, Paris, France* ⁴ *Product Risk Management, H.Lundbeck A/S, Paris, France*

Background and Aims: Two-month head-to-head clinical trials of escitalopram and venlafaxine demonstrated similar efficacy and better tolerability for escitalopram. However, as routine practice may differ from controlled trial, it is necessary to investigate the translation of clinical trial findings into real life. This work aims at comparing treatment early discontinuation (ED) at 1 and 2 months and its economic consequences at 6 months, under venlafaxine and escitalopram.

Method: Using US denominator-based claims database PharMetrics (includes data from 86 managed care health plans covering 45 million patients), we included adult patients diagnosed with depression who started venlafaxine or escitalopram between January 1st and December 31st 2004. ED was compared at 1 and 2 months using Cox proportional hazard models and healthcare costs at 6 months, using log-linear regression. Propensity scoring was used to account for baseline differences.

Results: 13,227 patients started escitalopram; 5,922 patients started venlafaxine. ED at 2 months was 47% for venlafaxine, 45% for escitalopram. At 1 month, venlafaxine patients had 50% more risk of ED than escitalopram patients (Hazard Ratio=0.493 [95%CI 0.432-0.564]); while this difference decreased at 2 months, (Hazard Ratio=0.955 [95%CI 0.912-0.999]). Continuing treatment at 2 months doubled the chance of still being on treatment at 6 months. Moreover 1) ED at 2 months incurred more costs over 6 months (+US\$173); 2) 6-month healthcare costs were higher with venlafaxine (+US\$626, p<0.001).

Conclusion: Early discontinuation rate was higher with venlafaxine than escitalopram, possibly due to intolerance to venlafaxine. ED was shown to affect later continuation and incurred costs.

P0037

Antidepressant prescribing in outpatients and inpatients

L. Haygarth¹, S. Alibone². ¹ *Pharmacy Department, South West Yorkshire Mental Health NHS Trust, Halifax, UK* ² *Clinical Governance, South West Yorkshire Mental Health NHS Trust, Wakefield, UK*

Antidepressants should be prescribed in line with NICE guidance. There are 3 relevant documents from NICE and the Trust has developed local guidelines for use of antidepressants in the relevant circumstances. An audit into prescribing of all psychotropic medication prescribed by adult mental health services was undertaken. Data includes the full prescribing for 936 patients (300 inpatients and 636 outpatients).

Of the 936 patients 526 patients (56%) were prescribed antidepressants. The prescribing of antidepressants is 95% monotherapy in line with trust and NICE guidance. There is a small amount of combination therapy some of which should be investigated further.

The SSRI antidepressants are recognised first choice antidepressants on the basis of efficacy and cost and 211 (42%) of the trust prescribing was SSRIs. However paroxetine is no longer recommended in the trust for the treatment of depression and there were 33 instances of prescribing paroxetine.

Other antidepressants may be chosen second or third line except for dosulepin which is not recommended for use and phenelzine which is only recommended as third line.

288 (58%) represented other antidepressants with 26 being for dosulepin.

Treatment with antidepressants should be as monotherapy unless the patient has recognised poor response to treatment. The addition of mirtazepine or mianserin to an SSRI is recognised as the most suitable combination therapy. There are 27 instances of prescribing more than one antidepressant, 11 of these show compliance with NICE guidance.

P0038

A Randomized and double-blinded clinical trial of Venlafaxine HCL sustained release capsules for treatment in adolescents with major depression

W.D. Ji^{1,2}, H.F. Chang^{1,2}, S.C.H. Yang³, C.H. Yang⁴, X.Q. Huang⁵, J.X. Zhou⁶, T.Y. Guo⁷. ¹Department of Psychiatry, Changning Mental Health Center, Shanghai, China ²The Hospital of Bio-X Center of Shanghai Jiaotong University, Shanghai, China ³Henan Mental Health Center, Xinxiang, China ⁴Wenzhou Medical College, Wenzhou, China ⁵West China University of Medical Science, Chengdu, China ⁶Shenzhen Children's Hospital, Shenzhen, China ⁷Shenzhen University, Shenzhen, China

Background and Aims: To evaluate the efficacy and safety of venlafaxine HCL sustained release capsules in treatment of depression in adolescents.

Methods: A randomized double blind and double dummy clinical trial enrolled 60 adolescents patients with depression, who were randomized 1:1 to administer venlafaxine HCL sustained release capsules 150 mg or fluoxetine 20 mg daily for 8 weeks. The efficacy of both treatment groups was evaluated based on the Hamilton Depression Scale and Clinical General Impression Scale pre- and post-treatment.

Results: The scores of Hamilton Depression Scale at the end of therapy were significantly reduced compared with the baseline in both groups ($P < 0.01$). The efficacy rate of venlafaxine HCL sustained release capsules versus fluoxetine treatment was 70.0% and 65.5%, respectively; the P value showed no statistical difference ($P > 0.05$). The common adverse reactions included dry mouth, insomnia, dizziness, and loss of appetite.

Conclusion: Venlafaxine HCL sustained release capsules is effective and safe agent for adolescents with major depression.

P0039

Escitalopram in the treatment of elderly patients with MDD

A. Theodorou, C. Kalkavoura, O. Theodoropoulou, P. Theodoropoulou, E. Tzebelikos. Department of Psychiatry, Sismanoglio General Hospital, Athens, Greece

Objective: To evaluate the efficacy and safety of escitalopram in an open-label, 8 weeks study.

Methods: Twenty seven (27) elderly patients suffering from MDD, according to DSMIV, were included in the study (17 female/10 male, average age 76.3). All patients were treated with escitalopram (dose range 10-20 mg, mean daily dose 16.48 mg). The assessment of antidepressant efficacy was performed using 17-item Hamilton Depression Rating Scale (HAMD17) and Geriatric Depression Scale (GDS). Safety measures included adverse events, vital signs and body weight. All the evaluations were performed at baseline and at week 8.

Results: Twenty five (25) patients concluded the study and two (2) patients discontinued treatment prematurely due to non-compliance. Escitalopram showed significant reduction in both HAMD-17 (-8.2) and GDS total score (-7.2). The percentage at endpoint of HAMD17 response was 44% and remission rates 24%. The most frequent adverse events were nausea in two patients (8%) and headache in four patients (16%). No significant changes were observed regarding vital signs. The mean body weight at baseline was 72.3 and at endpoint 73.1.

Conclusion: Escitalopram was well tolerated and efficacious in reducing symptoms of depression in elderly patients over the 8 week treatment period.

P0040

Does a diagnosis of depression or the prescription of an antidepressant influence hypnotic use in primary care?

J. Donoghue², M. Lader¹. ¹King's College, London, UK ²School of Pharmacy & Chemistry, John Moores University, Liverpool, UK

No recommendations or surveys of hypnotic use have taken into account the need to manage disturbed sleep in depression, a key symptom experienced by between 50% and 90% of patients. We investigated the impact of a diagnosis of depression/prescription of an antidepressant on hypnotic treatment in patients newly prescribed an hypnotic in primary care in the UK.

Data relating to new hypnotic prescriptions for 10 years (1996-2005) were obtained from the DIN-Link database. Patients (>15 years) were included if they received a new prescription for an hypnotic medicine and followed up for 1 year.

The proportion of patients newly prescribed an hypnotic who also received a diagnosis of depression increased from 11.1% to 17.4%. For each year of the study, a diagnosis of depression was associated with an increase in the length of treatment with hypnotics: in 2005, the average length of continuous treatment with an hypnotic in depressed patients was 80 days - 30% higher than non-depressed patients. The co-prescription of an antidepressant with hypnotic had similar results in 2005, the proportion of depressed patients prescribed an antidepressant who received an hypnotic for more than 3 months was 31% - over 10 times greater than those not prescribed an antidepressant.

In patients newly prescribed hypnotic medicine, a diagnosis of depression or the prescription of an antidepressant increases the length of hypnotic treatment, suggesting that disturbed sleep is an intractable feature of depressive illness, and that commonly prescribed