

around operationalizing compliance/adherence and persistence definitions. Comments were incorporated and the final operational definitions posted for consensus on the website. **RESULTS:** Medication Compliance (Synonym: Adherence) is the extent to which a patient acts in accordance with the prescribed interval and dose as well as dosing regimen. The unit of measure for compliance is administered doses per defined period of time, reported as a proportion (%) of prescribed doses (D) taken at the prescribed time interval (T) as measured by the period of time, i.e., % of TD, measured by percentage. **CONCLUSION:** Medication Persistence is the duration of time patient remains on treatment i.e. accumulation of time from initiation to discontinuation of therapy, where patient is defined as a discontinuer if medications were not taken within a predefined permissible time gap.

PHP47

EVALUATION OF THE RELATIONSHIP BETWEEN PHARMACEUTICAL PRODUCT PRICE AND HEALTH-RELATED QUALITY OF LIFE USING WHOLESALE ACQUISITION COST AND AVERAGE EFFECT SIZE

Murawski MM¹, Mychaskiw MA²

¹Purdue University, West Lafayette, IN, USA; ²Pfizer, Inc, New York, NY, USA

OBJECTIVES: The objective of this study was to evaluate the relationship between pharmaceutical product price and its ability to improve patient health related quality of life (HRQoL). **METHODS:** Comprehensive review of the literature was conducted to identify all HRQoL studies of pharmaceutical products that utilized a test-retest experimental approach. Effect sizes were calculated from data available for 31 products, representing a brand range of therapeutic areas. Wholesale acquisition cost (WAC), number of months on market, and number of products in therapeutic class was collected for each product. Cost per day of therapy was calculated using recommended starting dose in the labeling. Multivariate linear regression models were constructed where either WAC or cost per day of therapy at recommended starting dose was the dependent variable and effect size, number of months on market, and number of products in therapeutic class were independent variables. Diagnostics were performed to verify model assumptions. **RESULTS:** Using multivariate linear regression, average effect size, number of products in therapeutic class, and number of months on market were significant predictors of WAC [β (average effect size) = 167.13, $p < 0.0001$; β (number in class) = 14.85, $p < 0.0001$; β (number of months on market) = -0.47, $p = 0.0001$; R-square = 0.65]. Diagnostics revealed no violations of model assumptions. **CONCLUSIONS:** There is sufficient evidence to suggest that there is a direct relationship between a pharmaceutical product's ability to cause improvement in HRQoL and the price of the product, measured using average effect size and WAC, respectively. In addition, the number of products within a therapeutic class and their length of time on the market were influential of drug price. Further research should be conducted to evaluate the impact of prescription medications on HRQoL, and, to identify and characterize the effects of drug and marketplace variables on drug prices.

PHP48

A SURVEY OF PATIENT REPORTED OUTCOME (PRO) CLAIMS IN PHARMACEUTICAL ADVERTISING

Yuwaree Y, Rojsutee S, Thavorncharoensap M

Mahidol University, Rajathevi, Bangkok, Thailand

OBJECTIVE: To investigate the quantity and quality of Patient Reported Outcome (PRO) claims in pharmaceutical advertisements in 2 Thai medical journals. **METHOD:** A retrospective

review of all pharmaceutical advertisements in the 2004 issues of 2 Thai medical journals (Clinic and Pharmatime) was performed by 3 trained pharmacists. Two reviewers independently reviewed the advertisements. If the reviewers disagreed the final decision was made by the third reviewer. All distinctive pharmaceutical advertisements were classified into claim advertisement or reminder advertisement. PRO claims and economic claims were also identified. Then, the advertisements were categorized according to their reference statuses. Finally, the reviewers evaluated whether the cited references provided substantial evidence to support the claims. **RESULTS:** From 183 advertisements reviewed, there were 48 distinctive advertisements. Forty-five (0.94%) and three (0.06%) of the advertisements were classified as claim advertisement and reminder advertisement, respectively. Nineteen (0.42%) of the claim advertisements contained PRO claims while two (0.04%) of the claim advertisements contained economic claims. The result indicated that only 16 (0.36%) of the claim advertisements cited at least one published article retrievable from Medline as references, while the remaining 29 (0.64%) contained no reference or cited package inserted or non-published data on file as references. When looking closely at PRO claims, it was found that 12 (0.63%) of the PRO claims were misleading because the outcomes stated in the claims was not supported by the given references. In addition, there was not sufficient evidence to support all 2 economic claims. **CONCLUSION:** More than half of the PRO claims were misleading. Practitioners should be cautious in assessment of PRO claim advertisements in medical journal. There is also a substantial need for more rigorous regulation of PRO claims.

MENTAL HEALTH

PMHI

COST EFFECTIVENESS OF ESCITALOPRAM IN THE TREATMENT OF GENERALIZED ANXIETY DISORDER (GAD)

Walker JH¹, Bereza BG¹, Hemels M², Le Melleo JM³, Iskedjian M¹, Einarson T⁴

¹PharmIdeas Research & Consulting Inc, Oakville, ON, Canada;

²H. Lundbeck A/S, Paris, France; ³University of Alberta, Edmonton, AB, Canada; ⁴University of Toronto, Toronto, ON, Canada

OBJECTIVE: To determine the cost-effectiveness of escitalopram in the treatment of Generalized Anxiety Disorder (GAD) in Canada. GAD places a significant burden on primary care resources, exhibiting an 8% prevalence rate among patients seen by primary care clinicians. **METHODS:** A 24-week decision tree analytic model was constructed using Tree Age Data® Pro Suite. Patients received treatment for GAD with either escitalopram or generic paroxetine. Clinical rates were determined from a review of the literature; expert opinion guided model development in establishing decision pathways. Tolerance/intolerance to the initial drug was incorporated into the model, which included augmenting, titrating or switching comparators. Psychotherapy was used for patients not responding to either drug, or to the combination of either drug augmented with a benzodiazepine. Costs were measured in undiscounted 2005 Canadian dollars (CAD). Resources were valued using standard Canadian sources. Effectiveness was measured in Symptom Free Days (SFDs). Analyses were performed from two perspectives: the Ontario Ministry of Health and Long Term Care (MoH—included all direct costs: drugs, physicians visits), and societal (SOC—included direct plus indirect costs weighted using the average industrial wage). Extensive sensitivity analyses (1-way and probabilistic) were conducted. **RESULTS:** Results shown are preliminary. Base case analyses (MoH perspective) yielded an incremental cost of \$24 for escitalopram (expected cost = \$713 for 85 SFDs) over

paroxetine (expected cost = \$688 for 76 SFDs), for an incremental cost effectiveness ratio of \$2.79/SFD (\$1004/Symptom-free year). Paroxetine was dominated under the SOC perspective. Total expected cost from the SOC perspective was \$3676 and \$3529 for paroxetine and escitalopram, respectively. Sensitivity analysis was conducted on upper and lower efficacy boundaries, yielding similar incremental cost-effectiveness results. **CONCLUSION:** Escitalopram is cost-saving in the treatment of GAD under the SOC perspective in Canada, and appears to be cost-effective under the MoH perspective.

PMH2

of ADHD (Hyperkinetic Disorder: ICD-10 F90.0, F90.1). **METHODS:** Using the comprehensive claims database of the official physicians' organization of Nordbaden (KVNb), with an insured population of 2.234 m in 2003), n = 630 ADHD patients age 20 and beyond were identified. The ADHD group was matched with a non-ADHD cohort (n = 630) on a 1:1 ratio based on age and gender, and the rate of co-existent conditions was compared between both groups. Chi-square statistics was used to explore levels of significance. **RESULTS:** The most prevalent psychiatric conditions associated with ADHD in adults included depressive episodes (F32: prevalence 30.3%; relative risk [RR] 7.1*** [p < 0.001]), recurrent depressive disorder (F33: 14.3%, RR 12.9***), persistent mood disorders (F34: 7.0%, RR 11.0***), anxiety disorders (F41: 15.7%, RR 5.8***), adjustment disorders (F43: 18.9%; RR 6.6***), other neurotic disorders (F48: 8.6%, RR 6.8***), specific personality disorders (F60: 14.1%; RR 22.3***), other behavioral/emotional disorders with onset in childhood/adolescence (F98: 9.0%; RR 57.0***), mental/behavioral disorders due to substance use (F19: 4.9%; RR 7.8***) or due to use of alcohol (F10: 4.6%; RR 5.8***), and eating disorders (F50: 4.3%, RR 13.5***). Non-psychiatric conditions associated with ADHD included obesity, metabolic, infectious and allergic disorders, including asthma bronchiale, and diseases of the ear and hearing loss but not disorders of the eye and visual disturbances. Detailed analyses by age and gender will be presented. **CONCLUSIONS:** These data point to significant comorbidity associated with ADHD in grown-ups, thus underscoring the clinical relevance of the condition. They provide a basis for further epidemiological research and for analyses of the cost associated with ADHD in adult patients.

PMH4

ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD) IN CHILDREN AND ADOLESCENTS: MENTAL HEALTH AND PHYSICAL CO-MORBIDITY IN NORDBADEN / GERMANY

Schlander M¹, Schwarz O¹, Trott GE¹, Viapiano M², Bonauer N²

¹Institute for Innovation & Valuation in Health Care (InnoVal-HC), Eschborn, Germany; ²Kassenärztliche Vereinigung Baden-Wuerttemberg, Karlsruhe, Germany

With reported prevalence rates of 2–10%, ADHD is one of the most common disorders of childhood and adolescence. Only recently, comorbidity has been recognized as one of the most important aspects of the disorder. **OBJECTIVES:** To determine real-world prevalence rates for psychiatric and non-psychiatric comorbid conditions in children and adolescents with a diagnosis of ADHD according to ICD-10 criteria (Hyperkinetic [Conduct] Disorder, HKD/HKCD, F90.0/F90.1), using the Nordbaden claims database covering 2.238 m insured persons in South-Western Germany (82% of the regional population). **METHODS:** A total of n = 11,245 ADHD patients age 19 or less were identified. The ADHD group was matched with a non-ADHD cohort (n = 11,228) on a 1:1 ratio based on age and gender, and the rate of co-existent conditions was compared between both groups. Chi-square statistics was used to explore levels of significance. **RESULTS:** The most frequent psychiatric comorbidities (in 20–40% of patients, each; all p < 0.001; relative risks compared to control cohort 3–8) included mood and affective disorders, conduct disorders, specific developmental disorders, including those of scholastic skills. Significant associations (similar magnitude) were also found for ADHD and adjustment disorders, habit and impulse disorders, tic disorders, sleep disorders, disorders associated with sexual development, maltreatment syndromes, mental retardation, lack of expected normal physiological development and disorders due to brain

WITHDRAWN

PMH3

ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD) IN GROWN-UPS: ADMINISTRATIVE DATA ON CO-EXISTING CONDITIONS

Schlander M¹, Schwarz O¹, Trott GE¹, Viapiano M², Bonauer N²

¹Institute for Innovation & Valuation in Health Care (InnoVal-HC), Eschborn, Germany; ²Kassenärztliche Vereinigung Baden-Wuerttemberg, Karlsruhe, Germany

ADHD in children and adolescents is associated with substantial comorbidity. Longitudinal studies have shown ADHD to frequently persist into adulthood. **OBJECTIVES:** To use administrative data from Nordbaden / Germany to assess the extent of co-existing medical conditions in grown-ups with a diagnosis