VALUE IN HEALTH 16 (2013) A1-A298

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PSY4

THE POTENTIAL COST SAVINGS ASSOCIATED WITH PREVENTING THE DEVELOPMENT OF HYPERTENSION, DIABETES AND DYSLIPIDEMIA IN AN OVERWEIGHT AND OBESE POPULATION

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OBJECTIVES: The prevalence of obesity (BMI ≥30) remains above 35% and when combined with the overweight population (BMI ≥25), the age-adjusted prevalence is 68.8%. The objective was to develop a model demonstrating the cost savings associated with the prevention of hypertension (HTN), diabetes (DM), and dyslipidemia (DLP) in overweight and obese population by treating comorbidities at baseline to at least one medication at endpoint in the CONQUER study in obese and overweight subjects with ≥2 comorbidities. The risk of progression to HTN, DM, and DLP is applied to literature-based cost estimates to calculate the per-patient annual cost savings associated with phentermine/topiramate extended release (ER) in combination with lifestyle modification.

METHODS: A 1-year model was developed using data from the National Health and Nutrition Examination Survey (NHANES), clinical trial data, and published literature. The model estimates the cost of incident cases of HTN, DM and DLP in an overweight and obese population. Rates of progression to comorbidities are based on patients who progressed from no medication use for comorbidities at baseline to at least one medication at endpoint in the CONQUER study. The model was applied to the overweight population (BMI ≥25) and grade 2 obesity (BMI ≥30 and <40) population to estimate costs of interventions for grade 2 obesity. DLP-specific cost savings ranged from $56.02 for grade 3 obesity. DLP-specific cost savings ranged from $56.02 for grade 2 obesity to $10.42 for grade 3 obesity. DM-specific cost savings ranged from $109.23 for grade 2 obesity to $28.01 for grade 2 obesity.

CONCLUSIONS: This analysis suggests that treatment with phentermine/topiramate ER may be associated with cost savings by preventing the development of comorbidities in overweight or obese patients.

PSY5

MEDICAL AND PHARMACY CLAIMS-BASED ALGORITHMS FOR IDENTIFYING PATIENTS WITH MULTIPLE SCLEROSIS

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OBJECTIVES: This study compared different algorithms to identify patients with multiple sclerosis (MS) in claims data and recommended the most appropriate algorithm.

METHODS: Our literature review on MS studies in claims data identified ten different algorithms to identify MS patients. Some algorithms require either MS diagnosis or MS treatment, or both; some require two or more diagnoses or treatment claims; some require evidence of other neurological conditions in addition to an MS diagnosis. These algorithms were used to identify MS patients in Truven Health MarketScan Commercial and Medicare Supplemental Databases in 2004–2011. For each algorithm, MS prevalence rate, patients’ age and gender, proportion of patients with magnetic resonance imaging (MRI) and MS treatment were examined and compared with those in published systematic literature review (9/1/2001–8/31/2011) meeting eligibility criteria were published. These two algorithms also produced a prevalence rate of 135 per 100,000 people, same as the rate reported by Atlas of MS Database and the prevalence rate was not statistically different from each other. Calculation of the age-adjusted prevalence rate was applied to literature-based cost estimates to model the cost savings associated with phentermine/topiramate ER compared with lifestyle modification alone is $179.56, $177.44, and $167.70 for grade 1 (BMI ≥25), grade 2 obesity (BMI ≥30 and <40) and grade 3 obesity (BMI ≥40) population, respectively.

CONCLUSIONS: The algorithm that treatment with phentermine/topiramate ER may be associated with cost savings by preventing the development of comorbidities in overweight or obese patients.

PSY7

COMPARATIVE EFFECTIVENESS OF SMOKING CESSATION MEDICATIONS AMONG OBESE SMOKERS

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OBJECTIVES: To compare abstinence rates of different Food and Drug Administration (FDA)-approved smoking cessation medication strategies among obese smokers.

METHODS: A population-based retrospective cohort study was conducted using the General Electric (GE) electronic medical record database (2006 – 2011). The cohort consisted of obese adult smokers newly initiating use of an FDA-approved smoking cessation medication strategy (vs. non-TRTs/TRTs and placebo did not vary significantly across smoking cessation medications. Multivariate logistic regression models were used to identify predictor of abstinence at 3, 6, and 12 months after adjusting for patients with pre-existing comorbidities at baseline to at least one medication at endpoint in the CONQUER study. The abstinence rate of using any smoking cessation medications among obese smokers was 17.72% at 3 months, 20.61% at 6 months, and 22.51% at 12 months, respectively. While previous literature looking at adult smokers reported that the abstinence rate of using any smoking cessation medication among obese smokers was 17.72% at 3 months, 20.61% at 6 months, and 22.51% at 12 months, respectively.

CONCLUSIONS: A frequent issue that smokers face is the lack of differentiation in smoking cessation interventions among the high risk population of obese smokers.

PSY8

A META-ANALYSIS OF Efficacy AND Safety of PRESCRIPTION OPIOIDS, INCLUDING FORMULATIONS WITH TAMPER-RESISTANT TECHNOLOGIES, IN NON-CANCER PAIN MANAGEMENT

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OBJECTIVES: This meta-analysis was conducted to compare pain intensity and adverse event (AE) outcomes between opioids formulated with technologies that deter or resist tampering (tamper-resistant technologies [TRTs]) and non-TRTs for commonly prescribed long-acting opioids (LAOs) and short-acting opioids (SAOs) for treatment of non-cancer pain in adults.

METHODS: Sixteen journal articles [13 non-TRT vs. placebo, 3 TRT vs. placebo] from a systematic literature review (9/1/2001-8/31/2011) meeting eligibility criteria were included in the meta-analyses. Summary estimates of standardized pain intensity outcomes [difference in mean change of pain intensity from baseline to end of study (DMCPI), difference in sum of pain intensity difference over the study period (DMCPI), and sum of pain intensity difference over the study period (DMCPI)] and of odds ratios (OR) of 0.7 or ≥2 were computed through random-effects meta-analyses using DerSimonian-Laird method. Additional analyses included stratified analyses by treatment duration (<2 months, ≥2 months, ≥3 months, ≥3 months, ≥3 months) and by LAO/SAO, and indirect comparisons to contrast TRTs versus non-TRTs.

CONCLUSIONS: Summary estimates for standardized DMCPI and for standardized DMCPI indicated that TRTs and non-TRTs showed significantly greater efficacy than placebo in reducing pain intensity [The rate of use of DMCP] Non-TTR versus placebo: -0.59(95% CI: -0.94, -0.24), TRF versus placebo: -0.21(-0.35, -0.07), (Standardized DMCPI) Non-TTR versus placebo: 0.73(0.26, 1.20), TRF versus placebo: 0.23(0.04, 0.42), TRTs and non-TRTs had similar safety profiles, both were associated with higher odds of AEs than placebo. ORs from indirect analyses comparing AEs for TRTs versus non-TRTs were not significant Differences in pain intensity across TRTs and non-TRTs were not significant (p = 0.01, 0.01, 0.01, 0.01, 0.01, and 0.01, respectively). TRTs and non-TRTs had similar safety profiles and both were more efficacious than placebo in reducing pain intensity. Since TRTs are designed to reduce misuse/abuse due to tampering, they may be a means to reduce public health burden of opioid abuse.