switch (OR = 1.6; 1.2-2.2) and discontinuation (OR = 1.8; 1.5-2.1). Heart failure was associated with augmentation (OR = 1.6; 1.0-2.5) and discontinuation (OR = 1.7; 1.2-2.4). Age was inversely associated with augmentation and discontinuation and time since diabetes diagnosis was also inversely associated with augmentation. Conclusion: HBA1c is a clear driver of treatment regimen changes although there are other factors also independently related to change such as age, heart failure and baseline OAD.

TREATMENT PATTERNS OF ORAL ANTI-DIABETIC DRUGS IN THE UK

OBJECTIVES: In the UK, Oral Anti-Diabetic drugs "OAD" are administered to control hyperglycaemia in type 2 diabetes when HBA1c exceeds 48mmol/mol. Treatment guidelines determine initial OAD and subsequent changes in regimen depend on HBA1c response. Hence, the aim of this study is to quantify OAD treatment patterns.

METHODS: All patients who initiated an OAD (except rosiglitazone) with first use as index date, in the CPRD database between 1/1/2006 and 2/25/2011 were included. Periods of continuous and overlapping prescribing (Rx) were used to define discontinuation, switching and augmentation, a gap of 60 days since expiry of Rx defined discontinuation.

RESULTS: Of 63060 patients commencing OAD, 88% started on metformin and 8% on glimepiride both as monotherapy. Hence, all other OAD regimens comprised only 4% of all patients. Compared to metformin, the glimepiride patient group was older (mean age 67 vs. 61 years) and had higher mean baseline HBA1c (70 (Q10 60-95) vs. 64 (Q10 56-74) mmol/mol). The rate of discontinuation of baseline OAD at one year was 32% whilst the discontinuation of all OADs at one year was 16% for discontinuation of OADs to be permanent. Only 27% of patients who discontinued in the 1st 12 months did not restart after 4 years. The rate of switching was 6.4% and the rate of augmentation was 15% over the first year. These rates differed according to baseline OAD. Compared to metformin the discontinuation of glimepiride was higher (48% vs. 40%), as was switching (9.6% vs. 6.1%) and augmentation (23% vs. 14%). Lastly, insulin uptake was just 2% by year one after OAD initiation, again this was higher in the glimepiride group compared to metformin (7% vs. 4%).

CONCLUSIONS: Most patients initiated on metformin, which for those initiating on glimepiride, discontinuation, switching, augmentation and insulin initiation were all higher. Most patients who discontinued OAD subsequently re-started.

SYSTEMIC DISORDERS/CONDITIONS - Clinical Outcomes Studies

PSY1 CARDIOVASCULAR AND CONGENITAL SAFETY EVALUATION OF ANTIOBESITY AGENTS, INCLUDING TOPIRAMATE. A PHARMACOVIGILANCE ANALYSIS OF THE ADVERSE EVENT REPORTING SYSTEM

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OBJECTIVES: A myriad of pharmacologic agents are developed in attempts to control obesity, including the extension of the antiepileptic topiramate as a trophicotropic agent. However, concerns about the safety of such agents are mounting. This study aimed at evaluating the cardiovascular and congenital (CC) safety of marketed anti-obesity agents, including topiramate. METHODS: A pharmacovigilance analysis of adverse event reports spontaneously submitted to the US Food and Drug Administration’s Adverse Event Reporting System (AERS) from 2004 to 2011 was conducted. The Proportional Reporting Ratio (PRR) data mining algorithm is used to detect potential signals of adverse events that are reported for orlistat, phentermine, sibutramine, and topiramate. Safety signals are detected for PRR values > 2. The values are compared within obesity class and to all drugs in AERS.

RESULTS: A total of 41,930 adverse event reports for obesity agents were submitted to the AERS during the study period. About 4% and 1% of the reports were for cardiovascular and congenital problems, respectively. Compared to all drugs in AERS, antiobesity agents didn’t show higher than expected reporting of cardiovascular safety, but cardiac arrhythmias, pulmonary hypertension, hypertension, congenital problems, respectively. Compared to all drugs in AERS, antiobesity agents didn’t show higher than expected reporting of cardiovascular and congenital problems, respectively.

CONCLUSIONS: Topiramate was associated with valvular heart disease (27% vs. 10%), whilst for those initiating on glimepiride, discontinuation, switching, augmentation and discontinuation were all higher. Most patients who discontinued OAD subsequently re-started.