was comparable in both groups (7.3% ± 1.3). In G2, the number of patients reaching HbA1c < 7% was higher by 11.6%. **CONCLUSION:** PwT2D have a "DEFICIT" in knowledge regarding insulin in general. On an individual basis, PwT2D often underestimate the severity of their diabetes. Higher level of knowledge is correlated with higher WUI and leads to better glycemic control.

PDB49

PATTERNS OF BLOOD GLUCOSE MONITORING IN RELATION TO GLYCAEMIC CONTROL AMONG PATIENTS WITH TYPE-2 DIABETES IN THE UK

Secnik K[1], Yurgin N[1], Lage MJ[2], McDonald-Everett C[1]
[1]Eli Lilly and Company, Indianapolis, IN, USA; [2]HealthMetrics Outcomes Research, LLC, Groton, CT, USA

OBJECTIVES: The study compared patterns of blood glucose monitoring among patients with type-2 diabetes initiating therapy with insulin or oral medication and examined the relationship between the quantity of prescribed monitoring strips and glycaemic control. **METHODS:** Data were obtained from the UK General Practice Research Database. Patients were eligible if they were identified as having type-2 diabetes, initiated therapy with insulin or an oral agent, and had 12-month post-initiation data. Differences in patient characteristics and number of test strips prescribed between the insulin (n = 347) and oral cohorts (n = 2436) were examined. Multivariate regressions analyzed the relationship between quantity of monitoring and glycaemic control for a subset of patients (n = 245 insulin; n = 1795 oral) with available glycosylated haemoglobin (HbA1c) data. **RESULTS:** During the 12-month post-initiation period, patients in the insulin cohort were prescribed approximately twice as many test strips compared to those patients in the oral medication cohort. Multivariate regression revealed that individuals who initiated therapy with insulin and were prescribed enough test strips to test at least once per day in the six months prior to the test date had, on average, a 0.65% lower HbA1c value (p = 0.02) compared to the HbA1c values for individuals who were prescribed fewer test strips. In contrast there was no significant relationship between HbA1c levels and quantity of test strips prescribed for individuals who initiated therapy with oral antidiabetic agents. **CONCLUSIONS:** Results indicate significant differences in the prescription of blood glucose monitoring strips, with patients initiated on insulin prescribed almost twice as many test strips compared to patients initiated on oral agents. The greater number of blood glucose test strips prescribed was associated with lower HbA1c values for insulin patients only. Physicians may therefore wish to encourage frequent blood glucose monitoring among patients with type-2 diabetes who are treated with insulin.

PDB50

MODELLING THE CLINICAL CONSEQUENCES OF RIMONABANT IN ADDITION TO DIET AND EXERCISE IN ABDOMINALLY OBESE PATIENTS WITH TYPE-2 DIABETES

Annemans L[1], Lamotte M[1], Caro JJ[2], Lavaud V[3], Nicholls C[4], McEwan P[5]
[1]IMS Health, Brussels, Belgium; [2]Caro Research, Concord, MA, USA; [3]Sanofi-aventis, Bagneux, France; [4]Sanofi-aventis, Guildford, Surrey, UK; [5]Cardiff University, Cardiff, UK

OBJECTIVES: Rimonabant is the first selective CB1 blocker, currently under clinical investigation to reduce multiple cardiovascular risk factors. Four phase III clinical studies (RIO trials) demonstrated consistent significant improvements in multiple cardiometabolic risk factors including improvements in lipid and glucose parameters, in addition to reductions of weight and waist circumference. In patients with type-2 diabetes not adequately controlled with a monotherapy, a 0.7% reduction in HbA1c from a 7.3% HbA1c at baseline versus placebo was reported compared to diet and exercise alone, with a 15.4% increase in HDLc and 9% decrease in triglycerides from baseline. Approximately 50% of these effects were independent from weight loss. The objective was to predict the long-term clinical outcomes of treatment with rimonabant in the management of cardiovascular risk in abdominally obese diabetics. **METHODS:** A 20-year Markov model with a 6-month cycle-length and states representing diabetes, smoking, cardiovascular disease and death was developed. The weight-loss and beyond-weight-loss effects of rimonabant were modeled using the Framingham and UKPDS risk equations. A flexible time horizon of 1 to 20 years was applied. Patient characteristics and clinical data from the Rio-diabetes study were used. Extensive probabilistic sensitivity analyses were carried out. **RESULTS:** For a cohort of 1000 patients, 1 year rimonabant treatment compared to diet and exercise alone, prevented 15 events (stroke, MI, fatal and non fatal; angina, TIA) over a 20-year period, resulting in 50 life years gained. For a 2-year treatment duration, 27 events would be avoided, resulting in 84 life years gained. **CONCLUSION:** The treatment of cardiometabolic risk factors with rimonabant in abdominally obese patients with type-2 diabetes is likely to result in significant long-term clinical benefits.

PDB51

EVALUATING INTERVENTIONS ALONG THE COURSE OF DISEASE: MODELING DIABETES AND ITS MACROVASCULAR COMPLICATIONS

Feenstra TL, Hoogenveen R, Bos G, Baan C
National Institute for Public Health and the Environment (RIVM), Bilthoven, The Netherlands

Diabetes Mellitus and its complications cause a high burden of disease. Many different options for primary prevention and the prevention of its complications exist. To support decision makers in allocating money to different interventions in health care, insight into their costs and health effects over time is important, as well as the possibility to analyze the consequences of different objectives and constraints of the decision maker. **OBJECTIVES:** To develop a model that enables the comparison of primary prevention with the prevention of complications in diabetes patients as to costs of care and health effects. This is the first step in the development of a budget allocation model for diabetes. **METHODS:** Based on the RIVM Chronic Disease Model, a multistate transition model was developed with states representing individuals' risk factor and disease status. The model describes the relations between diabetes, its risk factors and its macrovascular complications. A health economics module computes outcomes in terms of intervention costs, costs of care and composite health effects and finally cost-effectiveness ratios. **RESULTS:** A set of formal equations defines the diabetes model and a health economics module. These were implemented in Mathematica and combined with estimates of input data, to result in a population model, linking risk factor prevalence in the population to incidence of diabetes, and linking risk factor prevalence in the diabetes population to incidence of complications. **CONCLUSIONS:** Basing the model on the Chronic Disease Model had the advantages of full inclusion of competing death risks in the model and easy generalizability to other chronic diseases. The model with the health economics module enables to compare the costs and effects of interventions on