inadequately controlled by metformin (MET) monotherapy. This study aimed to understand the impact of the prevalence of Metformin Advantage with Prescription Drug coverage (MAPD) patients in a large national health plan who newly initiate MET monotherapy, and assess factors associated with changes in therapy in the 12 months after MET initiation. METHODS: This was a retrospective cohort analysis of MET users 65 years or older with ≥1 claim for Fortuna T1 or T2, and affected by diabetes. Patients were identified using medical claim containing a primary diagnosis or ≥2 medical claims containing a secondary diagnosis of T2DM, and with an initial prescription fill for MET between 1/1/2008 and 9/30/2011. Demographic, lifestyle, and medication characteristics were analyzed using descriptive statistics; factors associated with treatment changes were examined using Cox proportional hazard regression models. RESULTS: 59% of MAPD patients (mean age 69.6 years) remained on MET therapy with no changes. Discontinuation was the most common treatment change (33%), followed by addition (5%), and switching (2%). Of patients who discontinued treatment (median time to discontinuation = 90 days), 61% did not reinitiate any diabetic treatment during the 12 months prior to the initial MET fill. Of those who added or switched to other antidiabetics, sulfonylureas were the most commonly-added or switched-to drugs. Discontinuation was predicted by being female (hazard ratio [HR] 1.06, [1.003;1.1295%CI]), having more comorbidities (HR 1.00, [1.001,01.0495%CI]) or a diagnosis of hypertension (HR 1.18, [1.051,1.2975%CI]) in the 12 months before initiating MET; in MAPD aged ≥ 65 (n=14,389), discontinuation was predicted by a higher baseline daily average consumption (DACON) of MET (HR 1.00, [1.0002;1.0006%95%CI]). CONCLUSIONS: Discontinuation of MET was the most common treatment change in this population. Being female, having a higher baseline DACON of MET, more comorbidities or a diagnosis of depression were all predictors of discontinuation.

PDB121 ASSESSING THE RELATIONSHIP BETWEEN RANDOM GLUCOSE AND ALL-CAUSE MORTALITY

Zara1, S.1, Scharf2, A1, Memari3, S.A., Al Madheen4, A., Aldhaheen5, A., Kohut5, A.

1University of California, San Francisco, CA, USA, 2Harvard University, Boston, MA, USA

OBJECTIVES: Early metabolic abnormalities that precede diabetes (impaired fasting glucose, random glucose tolerance test) and inter and intra-diabetic differences in glycemic parameters (HbA1c, fasting glucose) are important risk factors in the development of all-cause mortality. Our study aimed to assess the relationship between random glucose levels and development of all-cause mortality, specifically considering the differences between normal, high-normal glucose, pre-diabetes and diabetes. METHODS: A retrospective cohort study using a limited data from the Framingham Offspring Study was employed. Baseline-period was in 1956, each patient was followed for 24 years. Random glucose was grouped into normal, high-normal, pre-diabetes, and diabetes. Ages, gender, body mass index, and blood pressure were examined. Outcome measure was all-cause mortality. Bivariate and multivariate copropor- tional hazards regression models controlling for demographics and risk factors were performed to compare the risk of death between different random glucose level groups. RESULTS: The study cohort consisted of 3,270,281 participants, age 50(±8.6), of which 1,825(55.8%) were female. During the follow-up period, 1,178 patients deceased. The average follow-up time was 20 years; while average survival time was 24 years. High-normal glucose (HR 1.486; Confidence Interval 1.24 – 1.77), pre-diabetes (HR 3.328; CI 2.37 – 4.951) and diabetes (HR 5.314; CI 3.754 -7.523) were significantly associated with increased risk of all-cause death in the bivariate Cox regression model. In adjusted model, high-normal glucose level (HR 1.216, CI 1.019 - 1.45), pre-diabetes (HR 2.458; CI 1.647 – 3.667) and diabetes (HR 3.164; CI 2.14 – 4.521) were significantly associated with increased risk of death compared to normal glucose levels. After controlling for other confounders, random glucoseemia was associated with increased risk of all-cause death, while female gender was significantly associated with decreased risk of death. CONCLUSIONS: Random glucose alone can predict risk and high-normal levels are associated with increased mortality. Find- ings are of relevance when considering cost-effective strategies to extrapolate underestimated popula-tions throughout the globe, where medical resources are scarce and fasting glucose levels are difficult to obtain.

PDB122 THE IMPACT OF TREATMENT PATTERNS AND THE RISK OF SEVERE HYPOGLYCEMIA EVENTS IN TYPE 1 & 2 DIABETES MELLITUS IN FIVE CENTRAL EUROPEAN COUNTRIES


1Institute of Econometrics, Warsaw School of Economics, Warsaw, Poland, 2Healthquest spolka z ograniczona odpowiedzialnoscia Sp. K., Warsaw, Poland, 3Department of Experimental and Clinical Pharmacology, Medical University of Warsaw, Warsaw, Poland, 4Institute of Health Economics and Technology Assessment, Prague, Czech Republic, 5Healthcare4U Ltd, Budapest, Hungary, 6Promenius sanzetje, Zagreb, Croatia, 7Novo Nordisk Pharma Sp. z o.o., Warsaw, Poland

OBJECTIVES: Severe (requiring another person's assistance) hypoglycaemic events (SHEs) matter from clinical and economic perspective. Various risk factors are mentioned in the literature (drugs used, patients' adherence, diet, exercise). We aimed to compare diabetes mellitus (DM) treatment patterns in Croatia, Czech Republic, Hungary, Poland and Slovenia with respect to the resulting risk of SHE.

Methods: The im module refers the high risk (FINDRISC score ≥ 12) population to oral glucose tolerance test. After completion of the screening program, patients enter the disease progression and treatment module. The screening program can be repeated over defined periods, e.g. every 3 years. RESULTS: Introduction of 3 yearly risk stratified screening for 50-60 age groups with known diabetes was estimated to result in an incremental cost of €3 500 000 per year in comparison to sensitive to the starting age of the target group, the frequency and the stopping age of the organized screening. CONCLUSIONS: Risk stratified screening program was predicted to be cost-effective compared with no screening in Hungary in certain age groups. The results contribute to earlier treatment that results in better health and less complications.

PDB124 DIRECT COSTS OF DIABETIC SUPPLIES IN THE U.S.: AN ANALYSIS USING 2010 MEDICAL EXPENDITURE PANEL SURVEY (MEPS) DATA

Heinrich KH., Chandran A.

1Columbia University New York, NY, USA, 2BD, Franklin Lakes, NJ, USA

OBJECTIVES: The total estimated cost of diagnosed diabetes in the United States (US) in 2012 was $254 billion. Although the cost of diabetic supplies is reported to be less than 2% of total expenditures, the fractional cost contribution of the most common insulin delivery devices, critical to disease management, remain unknown. The objective of this study is to understand the cost distribution among pharmacy benefit management supplies and quantify the impact of manual insulin delivery on total pharmacy costs. METHODS: The total estimated cost of diabetic supplies in the U.S. in 2012 was $3,598,491,566. The total estimated cost of diabetic specialty medications in the U.S. in 2012 was $1,582,491,566. Test strips were the largest contributors to this category (74.7%, $2,689,696,646) followed by insulin pens (7.1%), pen needles (6.8%) and syringes (5.1%). Insulin delivery devices in the U.S. in 2012 were also estimated to cost $35 billion. The total estimated cost of diagnosed diabetes in the United States (US) in 2012 was $254 billion. Although the cost of diabetic supplies is reported to be less than 2% of total expenditures, the fractional cost contribution of the most common insulin delivery devices, critical to disease management, remain unknown.

PDB125 PATIENT EXPERIENCE WITH AND UTILIZATION OF MANUFACTURER-SPONSORED SUPPORT PROGRAMS FOR INJECTABLE DIABETES MEDICATIONS

Spanish C2, Wetzel AF1, Wright JP3, Hahn RA1

1GSK, Philadelphia, PA, USA, 2GSK, King of Prussia, PA, USA, 3Harris Interactive, Rochester, NY, USA

OBJECTIVES: Our objectives were to understand patient experience with and utiliza- tion of manufacturer-sponsored support programs (MSSPs) for injectable diabetes medications (T2DM) injectable therapy. METHODS: Data for these analyses were drawn from a larger cross-sectional survey evaluating treatment adherence and persistence among insulin-naive patients in the U.S. who had been prescribed injectable medication. Patients were recruited from a general-population on-line panel, and recruitment was stratified by medication and discontinuation status. Analyses are limited to the 3 medications for which ≥25 respondents reported using the corresponding treatment. RESULTS: Various research was used to extrapolate the positive cost implications that such devices may have on diabetes outcomes.

References:

1/1/2008 and 9/30/2011. Demographic and clinical characteristics were analyzed with the positive cost implications that such devices may have on diabetes outcomes.