

prescription habits. Our study confirmed the difference in prescription habits and results should be disclosed to prescribers. Mutual co-operation of health insurance and specialists on similar analyses and quality indexes specifications has a great potential to change the treatment patterns and could lead to significant savings when followed by direct feedback and education.

## DIABETES—Health Care Use & Policy Studies

PDB51

### DRUG USE FOR DIABETES MELLITUS TYPE 2 AND ITS COMPLICATIONS IN SLOVAKIA

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**OBJECTIVES:** Diagnosis of diabetes mellitus is the 4th in drug spending in Slovakia. Our objective was to explore drug costs for diabetes and pharmacotherapy break down costs on antidiabetics as well as the complications or co-morbidities prevalence and treatment. Drug consumption was compared for diabetic and non-diabetic patients. **METHODS:** We used claims data of reimbursed medicines in the y.2005 of one private health insurance fund. Diabetic patient was identified as the one with at least two prescriptions regarding DM diagnosis on annual basis. We compared prescription on the ATC3 level in costs and also in DDDs for diabetic and non-diabetic patients regarding the age group (analysis done for each age decade). **RESULTS:** We identified 13,481 diabetics /DM/ representing 7% of total diabetic patients undergoing pharmacotherapy in Slovakia. All other policyholders with prescriptions were included into the control group /non-DM/. The highest number of diabetic patients belongs to the age group of 50–59. Average annual drug cost per patient was: 655 EUR for DM versus 127 EUR for non-DM, what represents about 355% higher costs for DM. In drug costs of DM2 treatment antidiabetics represent 33% and other pharmacotherapy stands for 67%. Three leading ATC3 in reimbursed costs per diabetic patient were: C10A, C09A and A16A. The main differences in drug use prevalence except antidiabetics occur in the following drug groups: C09A ACE plain inhibitors (50% of DM versus 10% of non-DM with prescription); B01A antithrombotics (46% DM versus 9% non-DM) and C10A cholesterol and triglyceride reducers (40% DM versus 6% non-DM). **CONCLUSION:** DM diagnosis implies a relevant economic impact. Besides diabetics, the main cost driver is a cardiovascular treatment. This analysis will be followed by evaluation of the rationality in the prescription among diabetologists and could be the base for other pharmaco-economic studies.

PDB52

### FACTORS ASSOCIATED WITH THE CHOICE OF A GLITAZONES OR SULFONYLUREA AS ADD ON TO ONGOING METFORMIN MONOTHERAPY

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**OBJECTIVES:** To assess the differences between patient characteristics of Type 2 diabetic patients that add sulfonylurea (SU) vs. glitazone (PPAR) to ongoing metformin (MF) to attain adequate glycemic control in the real life practice settings in UK. **METHODS:** Retrospective clinical chart review and patient survey at the point of visit were conducted among patients aged  $\geq 30$  year at time of diagnosis of T2 DM and added a SU or

PPAR to MF mono-therapy in UK from Dec 2006 to Jan 2007. The information of each patient on HbA1c, medication use, co-morbid conditions was collected for the 7-month baseline period (on MF monotherapy) and the minimum a year follow-up period (since the addition of SU or PPAR to MF). **RESULTS:** Data from 412 patients (52% initially added SU to MF and 48% added PPAR) was collected. For the SU+MF and PPAR+MF groups respectively: mean age on MF alone was 60.8 (SD = 11.2) and 59.6 (SD = 11.8) years; age at diagnosis was 56.2 (SD = 10.8) and 54.5 (SD = 11.7) years; A1C prior to addition of SU or PPAR was 8.6 (SD = 1.5) and 8.6 (SD = 1.4); The following variables between the SU+MF and PPAR+MF groups respectively showed significant differences between the two groups: Weight 85.8 kg (SD = 18.9) and 90.1 kg (SD = 19.0); BMI was 30.4 (SD = 6.5) and 31.8 (SD = 7.0); % with Ischemic Heart Disease was 25.7% and 16.6%; % with MI was 11.8% and 5%; mean total cholesterol was 5.09 mmol/L (SD = 1.1) and 4.7 mmol/L (SD = 1.1); mean LDL was 2.8 mmol/L (SD = 1.0) and 2.5 mmol/L (SD = 1.1). Adjusted logistic regression showed that a lower total cholesterol value (OR = 0.71 95%CI = 0.58–0.87) was associated with PPAR added to MF compared to SU patients. **CONCLUSION:** In this study population half of the patients added PPAR to ongoing MF monotherapy. Patients adding PPAR to MF tended to have lower cholesterol levels.

PDB53

### AN EVALUATION OF TREATMENT DISCONTINUATION PATTERNS IN PEOPLE WITH TYPE 1 AND TYPE 2 DIABETES SWITCHED TO ALTERNATIVE SHORT ACTING INSULIN REGIMENS IN UK GENERAL PRACTICE

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**OBJECTIVES:** Treatment discontinuation may occur from a variety of reasons. The purpose of this study was to characterise treatment discontinuation in people who used either insulin lispro, other short acting insulin (SAI) analogues, or soluble regular human insulin (RHI). **METHODS:** Data were extracted from the GPRD, a resource that describes the primary care histories of around 7% of the UK population. Subjects were selected having been treated with one SAI. Cox proportional hazard models (CPHM) were used to determine relative treatment duration since these data were censored. A variety of covariates were considered. **RESULTS:** We identified 7,958 subjects: 31% SAI analogue, 25% lispro and 44% RHI. Of these, 68.2% had T1DM. In type 1 diabetes (T1DM) the mean age was 36.4 years (sd. 17.6) years with 45% female. In T2DM, the mean age was 55.8 years (sd. 13.7) with 46% female. Regarding type 1 diabetes; the median treatment duration with a SAI regimen was 11.6 years. Relative to RHI, the hazard ratio (HR) of discontinuation was 24.6% worse using other SAI analogue regimens ( $p < 0.001$ ), and 25.1% better with lispro ( $p < 0.001$ ). Gender—being male—was the only other significant factor (HR = 0.798;  $p < 0.001$ ). Regarding type 2 diabetes; the median treatment duration with a SAI regimen was 5.6 years. Relative to RHI, the hazard ratio (HR) of discontinuation was 21.1% worse using other SAI analogue regimens ( $p < 0.008$ ), and 25.7% better with lispro ( $p < 0.001$ ). Age at SAI regimen initiation was the only other significant factor in the T2DM discontinuation model (HR = 1.011;  $p < 0.001$ ). **CONCLUSION:** There was a discernable pattern to treatment discontinuation in people treated with alternative SAI regimens. Insulin lispro resulted in less likelihood of switching treatment. Gender was an important predictor of treatment discontinuation in T1DM and subject age at initiation in T2DM.