41 841 (~EUR 1 518) per one patient. The total average cost per one type-2-diabetes patient was estimated at $77 (95%CI: $76-$78) per patient per year. Indirect costs are 1941 (from 1022 to 4357) per patient/year. The cost of type 2 diabetes mellitus was CZK 55 956 (~EUR 2 031). A longitudinal study in France, 4Cemka-Eval, Bourg la Reine, France, 5MSD France, COURBEVOIE, France, 6UMS 011 - fr

OBJECTIVES: The assessment of cost of illness of diabetes and its complications allows to expand opportunities of expansive outpatient medical care and health care system. Careful assesment of cost of illness of diabetes and its complications is necessary to allow to expand opportunities of expansive outpatient medical technologies use.

PDB39 COST OF TYPE 2 DIABETES ACCORDING TO GLUCOSE-LOWERING MEDICATIONS IN FRANCE
Charbonnel B, Dalloingueville J, Simon D, Bureau F, Leproust S, Lery-Bachelot L, Gourreau P, Detrey F
1University of Nantes, Nantes, France, 2Pasteur Institute, Lille, France, 3Pitie Hospital, Paris, France, 4Cemka-Eval, Bourg la Reine, France, 5MSD France, COURBEVOIE, France, 6UMS 011 - fr

OBJECTIVES: With the introduction and delisting of some glucose-lowering medications, pharmacological treatments in T2D have changed in the recent years and details of the current drug use patterns are not known. This descriptive study aims to assess the current drug use patterns of patients with type 2 diabetes and the cost of use of antihyperglycemic agents in France in 2013. METHODS: A random sample of ~ 600,000 patients registered in the French national health insurances reimbursement database was used. Patients with diabetes were identified through their use of glucose-lowering medication and coding of hospital stays and long-standing condition insurance coverage in the database. Drug utilization patterns of antihyperglycemic agents were estimated considering prescriptions in Q4 2013 and compared to data from Q4 2007. RESULTS: Overall 28,708 patients with T2D (estimated database prevalence 4.5%, 8.8% in people aged 40 and over) were identified in 2013. Mean age was 67.5 (SD 12.9), 54.1% were male. In Q4, 41.2% of T2D patients were being treated with a single oral antihyperglycemic agent, 25% were treated with two oral agents, 4.1% with three or more OADs. The use of metformin increased over time especially in monotherapy (66% among monotherapy in 2013 versus 50% in 2007). All thiazolidinediones and some sulfonylureas treatments were replaced by DPP-4 inhibitors and to a much lesser extent with GLP-1 agonists. CONCLUSIONS: Antihyperglycemic prescription patterns in France have changed in recent years in parallel with the introduction of different classes of medications to the marketplace but probably also in an attempt to improve glyemic control of patients. Knowledge of real life pattern of drug utilization remains an important dimension to better understand therapeutic needs in T2D management.

PDB40 HOSPITALIZATION COST AND LENGTH OF STAY ASSOCIATED WITH OPHTHALMOLOGICAL SURGERY DEPENDING ON THE DIABETIC STATUS

OBJECTIVES: Ophthalmological complications (glaucoma, retinopathy, cataract) are frequent in patients with type 1 or type 2 diabetes and often require surgical treatment. This study aimed at assessing the impact of diabetes on the hospitalization costs and the length of stay associated with these surgical treatments in Belgium, using retrospective data. METHODS: The average hospitalization cost and the average length of stay of all hospital stays were estimated using the longitudinal IMS Hospital Disease Database (year 2013), including data (diagnoses, procedures, costs) on 24% of Belgian hospital beds. Stays were considered as a surgical stay if the ICD-9-CM procedure codes corresponded to surgery for glaucoma (12.1 to 12.7), vitrectomy (14.71-14.74) and cataract extraction (13.19, 13.6). Patients were identified as diabetic if at least one diagnostic of diabetes (ICD-9-CM: 249-250) had been documented during the calendar year. The impact of diabetes on length of stay was assessed through Wilcoxon non parametrical test. Results: 671 stays with surgery for glaucoma, 1,438 stays with vitrectomy and 204 stays with cataract extraction were retrieved in the database (with diabetic patients accounting for 56, 202 and 24 of these stays respectively). Patients with Type 1 diabetes (n=14, split between glaucoma surgery and vitrectomy) were significantly younger than Type 2 diabetes or non-diabetic patients (50.3 years, vs. 69.5 and 66.6 years respectively). The average total cost of diabetic patients (both types) was more than twice the cost of non-diabetics in both glaucoma surgery (7,972 vs. €3,278; p<0.001) and cataract extractions (10,688 vs. €3,935; p<0.001) and about 30% higher in vitrectomies (€3,755 vs. €2,869; p<0.001). LOS was also systematically higher in diabetic patients (glaucoma surgery: 2.8 vs. 1.7 days, p<0.001; vitrectomy: 4.7 vs. 3.0 days, p<0.001). CONCLUSIONS: The presence of diabetes increases dramatically both LOS and hospitalization costs in patients undergoing ophthalmological surgery.

PDB41 PRODUCTIVITY LOSS COSTS ATTRIBUTABLE TO OBESITY IN WORKING PATIENTS WITH DIABETES IN THE US
Lee S, Choi I, Chang C, Sub D

OBJECTIVES: The assessment of cost of illness for working patients with diabetes is limited. This study is the first to use a cross-sectional database to determine the impact of obesity in working patients with diabetes and the cost associated with this loss.

METHODS: This study used a cross-sectional design using the 2003-2012 Medical Expenditure Panel Survey (MEPS) data. Asthma patients (18-64 years old) were self-reported, had a Clinical Classification Software (CCS) code of 250. To investigate the impact of having obesity, patients were classified as normal-weight (<18.5 ≤ BMI<25), overweight (25 ≤ BMI<30), and obese (BMI≥30). Productivity loss costs, which were measured based on missed work days due to illness or injury for one year and the hourly wage, was estimated using a two-part model to adjust for patients with zero costs. To estimate the productivity loss costs attributable to having obesity, each group of costs was estimated by assuming everybody to be obese; these costs were then re-estimated by assuming everybody was normal-weight, and the mean difference between the two estimated costs was calculated. All costs were converted to 2013 US dollars using the Consumer Price Index. RESULTS: Among a total of 6,992 working adults with diabetes, the prevalence of normal-weight was 12.9%, overweight 30.1%, and obese 57.0%. Annual average productivity loss costs for normal-weight and obesity in diabetes patients were $471(95%CI:$354-$588) and $385(95%CI:$323-$467) per patient, respectively. Asthma patients among those with obesity who had lost 1.02 times greater productivity loss costs than normal-weight patients after adjusting for patients’ demographic and clinical characteristics. The adjusted productivity loss costs attributable to having obesity in working diabetes patients was estimated at $77 (95%CI: $76-$78) per patient per year. CONCLUSIONS: The loss of productivity costs among US diabetes patients is substantial, which is amplified by the presence of obesity. This study highlights the importance of obesity control in order to reduce costs and enhance productivity in patients with diabetes.

PDB42 LONGITUDINAL CHANGES IN MEDICAL SERVICES COSTS FROM 2006 TO 2012 FOR NEWLY DIAGNOSED T2D PATIENTS
Wong W, Liang Y, Kimball E, Hobbs T, Kong S, Sakurada B, Bouchard J, Novo Nordisk Inc, Plainsboro, NJ, USA

OBJECTIVES: Changes in healthcare resource utilization by Type 2 diabetes (T2D) patients over time are important for understanding the effects that treatment paradigms may have on costs of disease. This study was a longitudinal assessment of real-world claims data which followed changes in treatment costs for a single cohort of newly diagnosed T2D patients. Methods: The MarketScan® Database was examined for claims data from US-based T2D patients. Inclusion criteria were: at least 2 diagnoses according to ICD-9 codes for T2D, or 1 T2D diagnosis plus 1 or more OAD claims, and allowing 1 possible misdiagnosis for type 1 diabetes, ≥18 years of age, continuous enrolment starting from 2006 (index year) to 2012 in a plan with prescription benefits, and at least 1 prescription for any antihyperglycemic drug. All-causes of inpatient and outpatient services, medications, and supplies were analyzed. RESULTS: From 2006-2012, total annual out-of-pocket increased from $9,817 to $12,551, adjusted to 2012 levels. Costs for outpatient services grew 33% ($4,214-$5,645/outpatient). Outpatient emergency room utilization costs rose 40% ($1,846-$2,586/utilizer). Total inpatient costs rose 47% ($19,453-$28,526), followed by a 36% growth of inpatient emergency room costs ($15,823-$21,526). Inpatient costs/day stay increased from $2,776-$3,261. From 2006-2012, mean total days/stay/inpatient remained stable between 5.6 to 6.0 days, indicating annually increasing costs for inpatient services. Overall annual drug costs/utilizer increased 14% ($2,969-$3,389), as did anti-diabetic drug costs/utilizer (61%, $474-$858). Between 2006-2012, diagnosed T2D-associated comorbidities increased as follows: cerebrovascular disease (13%-21%), peripheral vascular (3%-10%), nephropathy (3%-13%), and retinopathy (4%-14%). CONCLUSIONS: Costs for all types of resource utilization increased, ranging from 8% to 81%, mainly driven by increased inpatient LOS. Productivity loss may partly be responsible for the increased comorbidities, thus accounting for some increased treatment costs, along with increased drug costs.

PDB43 COST OF ACHIEVING COMBINED IMPROVEMENTS IN HBA1C AND WEIGHT WITHOUT HYPOGLYCAEMIA OVER 4 YEARS IN A POST-HOC ANALYSIS OF THE DAAPAFLIOZIN – MET VS T2D PATIENTS
Johansen P, Muhmekjere S, Storudd E, Sundervall C

OBJECTIVES: The SGLT2 inhibitor dapagliflozin (DAAPA) increases glucorina in an insulin-independent manner resulting in reductions in hyperglycemia, weight and a low risk of hypoglycaemia. Glipizide (GLIP) reduces hyperglycemia by increasing β-cell insulin secretion with risk of hypoglycaemia and weight gain. We conducted a cost analysis of treating patients over 4 years to two relevant com-positive endpoints: (1) HbA1c lowering of ≤0.5%, no major or minor hypoglycaemic events and weight loss ≥3% or (2) HbA1c lowering of ≤0.5%, no major or minor hypoglycaemic events and weight loss ≥5%. METHODS: The Cardiff Diabetes model