PB35
THE INDIRECT COSTS OF TYPE 1 DIABETES MELLITUS ASSOCIATED WITH ABSENTEISM IN POLAND IN 2013
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OBJECTIVES: The aim of this study was to associate with diabetes type 1 mellitus (DM) from the perspective of the Social Insurance Institution (ZUS) in Poland. METHODS: The estimates were based on data from the year 2013 concerning absence from work due to the illness (kick leave) and the amount of short-term disability, the sufferers of which claim rehabilitation benefit, and the amount of permanent (or long-term) disability, the sufferers of which claim disability pension. Cost analysis was performed based on the Human Capital Approach taking into account Gross Domestic Product (GDP) per capita equal to 10 278 EUR. RESULTS: Total indirect costs of DM types 1 in the year 2013 in Poland were 80 148 008 EUR. Total indirect costs associated with absenteeism were 8 263 EUR per inhabitant. The costs for sickness absence were 8 263 EUR per inhabitant. The percentage of costs of DM type 1 was long-term disability, in particular unlimited period, which accounted for 71%. Long-term (limited period), short-term disability and sick leave costs constitute 17%, 5% and 9% of total indirect costs of DM type 1, respectively. One quarter of a person with type 1 diabetes generated a cost of productivity equal to 431 EUR. The cost of disability pension per one person was higher than rehabilitation benefit, and equalled 20 600 EUR (limited period) and 362 505 EUR (unlimited period) compared with 3 611 EUR. CONCLUSIONS: DM in Poland generated high indirect costs. The main component was long-term disability, in particular unlimited period, rehabilitation benefit and disability pension (limited period) and sick leave generated much lower costs for Social Insurance Institution.

PB36
COSTS OF TYPE 1 DIABETES MELLITUS IN PEDIATRIC PATIENTS IN SPAIN: A RETROSPECTIVE OBSERVATIONAL STUDY
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OBJECTIVES: This is the first study that assesses the economic costs of Type 1 Diabetes Mellitus (T1DM) in pediatric patients in Spain. The main objective of this study was to estimate direct healthcare costs (DHC) and direct non-healthcare costs (DNHC) of T1DM in children and adolescents. METHODS: CHARTS: Children and adolescents with Type 1 Diabetes Mellitus (T1DM) from an endocrinology clinic in the La Mancha University, Toledo, Spain, 2Hospital Regional Universitario de Málaga, Málaga, Spain, 3El Lilly and Company, Madrid, Spain, 4Tosi Lilly and Company, Indianapolis, IN, USA, 5Instituto Max Weber, Madrid, Spain, 6Lilly, Alcobendas (Madrid), Spain
BACKGROUND: This is the first study that assesses the economic costs of Type 1 Diabetes Mellitus (T1DM) in pediatric patients in Spain. An observational study conducted in 2014 on a representative sample of 275 patients aged 1-17 years diagnosed with T1DM, distributed across 12 hospitals in Spain. The study followed a bottom-up approach to costing from a societal perspective. Data on demographic and clinical characteristics, resource use, and informal care were collected cross-sectionally from medical records and questionnaires completed by clinicians and patients’ caregivers. The reference year for unit prices was 2014. RESULTS: The average annual cost for a T1DM patient was €27,349. DHC amounted to €34,44, with statistically significant differences depending on glycemic control (HbA1c < 7.5% vs. HbA1c ≥ 7.5%): €3,683 versus €4,788 (p<0.005) for patients with good glycemic control (HbA1c < 7.5%) and without hypoglycemia) and related comorbidities (with versus without): €5,777 versus €3,713 (p<0.05) after controlling for age and gender. The largest DHC were diabetes supplies (43.4% of total DHC), outpatient visits (8.841), and medication (6.670). Average DNHC were €22,204. Informal care (the time that caregivers spend in DM related caregiving tasks) represented 97.5% of DNHC (€22,618) and 82.7% of total costs. CONCLUSIONS: T1DM in children and adolescent patients carries a considerable social economic burden, especially in the case of severe care, although different economic cost analyses for the treatment of the disease are needed to highlight the cost of the disease (i.e.: 3.6% were DMAKI, 3.2% were DMCKD), 12.44% had other than renal associated complications. The total cost incurred for the treatment of the disease and its related complications (DM alone, DMAK, DMCKD, DM neurological complications, DMTHN & DMTHP) did not vary significantly [1. Mean+ SD (INR): 10404.7 ± 37740.06, 13374.53 ± 11915.54, 14840.53±14124.05, 8395.35 ± 16580.11, 27130.28 ± 26494.67, 5310.5 ± 13113.78] but varied according to varying factors like free screening or treatment for other symptoms, etc. The cost based on various factors were as listed: Medicine + Diagnostic charges + Nephropathy + Diabetic cost associated + Rehabilitation benefit, and equalled 20 600 EUR (limited period) and 362 505 EUR (unlimited period), respectively. Cost structure of health care provision for pregnant women with uncomplicated pregnancy is the most significant costs are spent on thyroid laboratory tests.

PB37
PHARMACOECONOMIC EVALUATION OF GERIATRIC DIABETICS IN A TERTIARY CARE HOSPITAL: A PROSPECTIVE STUDY
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OBJECTIVES: The number of patients in the Czech Republic treated for diabetes in 2013 was nearly 862 thousand. The Type 2 diabetes mellitus share was 91.7 %. The number of treated diabetes has been increasing in a long-term trend as well as the number of patients. The goal of our study was to estimate the cost of type 2 diabetes from the health insurance perspective in a newly established regional diabetes outpatient facility. METHODS: The cost-of-illness analysis of direct cost was performed from the third-party payer perspective based on data from the year 2014. The bottom-up approach was used. Data of all 552 patients with Type 2 diabetes were (all patients with Type 2 Diabetes in the ambulance were taken into consideration. Altogether 1 696 consultations were provided to the patients during a period of 12 months. The cost of consultations for one type-2-diabetes patient per year was CZK 840.56 (€ 30.5), the average cost of treatment for one patient was CZK 10 336 (EUR 375), the average material cost was CZK 2 605 (EUR 105) per patient, and CZK 2 137 (EUR 4) was the average cost for amputation per patient, and the average cost of diabetic nephropathy was CZK 2 181 (EUR 73) per patient. The average cost of diabetic complications in the overall sample consisted of 3016 patients (age 45-69). Inpatient and outpatient treatment costs were calculated for the year later. The highest treatment costs appeared during the year, when the event occurred, and for the year later. The highest costs treatment appeared during the year, when the event occurred, and for the year later.
Type 2 diabetes or non-diabetic patients (50.3 years, vs. 69.5 and 66.6 years respectively) undergoing surgery for glaucoma. The average 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 (€10,668 vs. €3,935; p<0.001) and about 30% higher in vitrectomy (€3,755 vs. €2,869, p<0.001). LOS was also systematically higher in diabetic patients (glaucoma surgery: 5.8 vs. 4.4 days; p<0.001; cataract: extraction: 14.7 vs. 3.0 days). 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

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OBJECTIVES: Previous research has shown that a significant proportion of the direct medical cost of diabetes results from productivity loss costs attributable to having obesity in working adults with diabetes. METHODS: This study applied 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 of Health Status (CCS) code of 250. To investigate the impact of having obesity, patients were classified as normal-weight (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, were 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 of 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 €253-564) per patient, respectively. There were no statistically significant differences among T2D patients who had lost work time where those with obesity had 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 were estimated at €767 per T2D patient.

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 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

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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 diabetes. This study was a longitudinal assessment of real-world claims data which followed changes in treatment costs for a single cohort of T2D patients (N=27,600) of newly diagnosed T2D patients. Methods: 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 and at least 1 OAD claim, 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 antidiabetic medication. All-cause costs of inpatient and outpatient services, medications, and supplies were analyzed. RESULTS: From 2006-2012, total annual costs 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/outpatient). Diagnostic test costs increased 18% ($915-$1,092). The trend in total T2D costs followed a trend of increased growth in inpatient emergency room costs ($15,823-$21,526). Inpatient costs/day stay rose from $3,473 to $4,322, and inpatient ER 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 (81%; $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 1% to 81%, mainly driven by increased insulin costs. Mortality and hospitalization 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 HYPOGLYCEMIA OVER 4 YEARS IN A POST-HOC ANALYSIS OF DAPA-GLIPIZIDE VS MET+GLIPIZIDE/78

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OBJECTIVES: The SGLT2 inhibitor dapagliflozin (DAPA) increases glucosuria in an insulin-independent manner resulting in reductions in hyperglycemia, weight and BP with a low risk of hypoglycemia. Glipizide (GLIPI) reduces hyperglycemia by increasing insulin secretion while cell insulin secretion with risk of hypoglycemia and weight gain. We conducted a cost analysis of treating patients over 4 years to two relevant composite endpoints: (1) HbA1c lowering of ≤5.0%, no major or minor hypoglycaemic events and weight loss ≥3%, and (2) HbA1c lowering of ≤5.0%, no major or minor hypoglycaemic events and weight loss ≥5%. METHODS: The Cardiff Diabetes model