in the A1chieve study. METHODS: The CORE Diabetes Model was used to make long-term projections of clinical and cost outcomes associated with a 1% HbA1c reduction based on A1chieve, a global, prospective, observational study of basal, mealtime and biphasic insulin analogs in routine clinical practice. At baseline, mean (SD) patient age was 60 (10) years, duration of diabetes 12 (5) years and HbA1c 9.2 (1.8%). HbA1c was reduced by 1%-point from baseline in the active group relative to the control group. Life expectancy, complication rates and the cost of complications were projected of a 35-year time horizon. Future costs and clinical outcomes were discounted at 3% annually. Costs are presented in 2011 Algerian Dinar (DZD), converted to Euros (EUR) at an exchange rate of DZD 1 EUR 0.096. RESULTS: A 1% reduction in HbA1c was associated with improvements in both clinical and economic outcomes. Undiscounted life expectancy was improved by 0.17 year with a 1% improvement in HbA1c (6.58 versus 6.40) years. The cumulative incidence of all diabetes complications included in the analysis was lower in the 1% HbA1c reduction group. Complication costs were strengthened by low HbA1c reduction (DZD 387,236 [EUR 3,717] versus DZD 396,605 [EUR 3,810]). The most pronounced difference was in the cost of renal complications.

CONCLUSIONS: Glycemic control in A1chieve patients was generally suboptimal in the Algerian setting, improvements in glycemic control are likely to lead to substantial clinical and economic benefits due to reduced complication rates. Consequently, the cost-effectiveness of intensifying treatment in these patients is worthy of further analysis.

PD042 EVALUATING THE CLINICAL AND COST OUTCOMES ASSOCIATED WITH IMPROVING GLYCEMIC CONTROL IN TYPE 2 DIABETES PATIENTS IN INDIA

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OBJECTIVES: The core objective of this study was to evaluate the impact of improving glycemic control on clinical and economic outcomes in type 2 diabetes patients in India. METHODS: 100 patients were selected for the study. Baseline characteristics of the study population were comparable. A 1% reduction in HbA1c was observed in the intervention arm, whereas the control arm maintained a 1% increase in HbA1c. The study was conducted for a period of 12 months. End points were clinical and economic. Clinical end points included changes in HbA1c levels, weight, blood pressure, dyslipidemia and complications. Economic end points included changes in healthcare utilization and associated costs. RESULTS: Mean (±SD) age of patients at baseline was 54.3 (±6.9) years. Mean (±SD) HbA1c levels were 7.7 (±1.8) % at baseline and 6.6 (±1.6) % after 12 months. Cost per patient was Rs. 5,131.15 (±2,554.15). CONCLUSIONS: Improving glycemic control was associated with significant improvements in clinical parameters as well as reduced healthcare utilization and costs. This study provides evidence of the benefits of glycemic control in type 2 diabetes patients in India.

PD043 ECONOMIC EVALUATION OF VILDAGLIPTIN COMPARED TO GLIMEPIRIDE IN TYPE 2 DIABETES PATIENTS IN GREECE

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OBJECTIVES: Evaluate the cost-utility (CUA) of vildagliptin or sulphonylurea as add on treatment for type 2 diabetes patients in Greece. RESULTS: A 35-year time horizon was considered and patients were followed up for up to 10 years. The CUA was performed from the healthcare and societal perspective. The incremental cost-effectiveness ratio (ICER) for vildagliptin compared to sulfonylurea was estimated at €5.97 per QALY for vildagliptin and €10.54 per QALY for sulfonylurea. CONCLUSIONS: The CEA demonstrated that vildagliptin was cost-effective compared to sulfonylurea for type 2 diabetes patients.

PD044 LONG-TERM ECONOMIC ANALYSIS OF GLIMEPIRIDE COMPARED TO VILDAGLIPTIN IN TYPE 2 DIABETES PATIENTS IN GERMANY

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OBJECTIVES: To conduct a cost-effectiveness analysis of vildagliptin compared to glimepiride in type 2 diabetes patients in Germany. METHODS: A Markov model was used to estimate clinical outcomes and direct costs over a 35-year time horizon. Patients were followed up for up to 10 years. Costs were derived from the German healthcare system. The baseline model was compared to a scenario in which vildagliptin was used as initial treatment. RESULTS: There were no significant differences in lifetime health outcomes between the vildagliptin and glimepiride groups. The costs were lower for vildagliptin because the additional cost of vildagliptin was outweighed by the savings in costs related to the treatment of hypoglycemia and hypoglycemia-related hospitalizations. The incremental cost-effectiveness ratio (ICER) for vildagliptin compared to glimepiride was estimated at €3.52 per QALY for vildagliptin. CONCLUSIONS: Vildagliptin was cost-effective compared to glimepiride in type 2 diabetes patients in Germany.

PD045 COST-EFFECTIVENESS OF VILDAGLIPTIN COMPARED TO GENERIC SULPHONYLUREAS ADDED ON TO METFORMIN FROM THE PORTUGUESE SOCIETAL PERSPECTIVE

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OBJECTIVES: Vildagliptin has demonstrated efficacy on HbA1c comparable to glimepiride after 2 years of add-on treatment to metformin with markedly reduced hypoglycemic risk. The current analysis aims to assess the cost-effectiveness of vildagliptin versus generic sulphonylureas (SUs) to metformin using a cost-effectiveness analysis (CEA) framework from the Portuguese societal perspective. METHODS: The CEA utilized a Markov model building on the UKPDS risk equations to estimate micro/macro-vascular complications and mortality over a lifetime horizon. Clinical parameters in the current model include: HbA1c levels, weight gain, systolic blood pressure, total cholesterol, HbA1c-related events, and other events. Patient distribution on demographic and clinical variables was based on Portuguese epidemiological data. The treatment algorithm allows for treatment switch when: HbA1c goal is not met; drug intolerance; poor compliance. Drug parameters and quality of life decrements were derived from literature. Drug costs were based on Portuguese list prices, while the unit cost of each complication was obtained from the Diagnosis Related Groups (DRG) database. RESULTS: On average, the add-on of vildagliptin was estimated to result in a per patient gain of 0.11 QALY and an increase of €1,453 on total cost when compared to the add-on of SU to metformin, resulting in an incremental cost-effectiveness ratio of €13,794/QALY. CONCLUSIONS: Under the Portuguese societal perspective, adding vildagliptin is projected to be likely cost-effective for patients with type 2 diabetes who are not at HbA1c goal on metformin compared to adding SU to Metformin (the price difference of the two comparators is bridged when complications’ cost is included in the analysis).

PD046 ANTI-DIABETIC DRUGS AND IN-PATIENT AdMISSIONS ATTRIBUTABLE TO DIABETES IN PORTUGAL

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OBJECTIVES: Despite the growing incidence of diabetes, the occurrence of complications requiring hospitalization has stabilized in the last decade. Advances in health care and, resulting in improved access to innovative drugs may have led to these health gains. We aimed to explore the relationship between patients’ access to newer oral anti-diabetic drugs (OADs) and the number of hospitalizations attributable to diabetes. METHODS: For the period 2000–2009, we collected data on: 1) the number of hospital admissions and their costs attributable to diabetes, 2) the number of patients treated for diabetes per year and health region, based on the OADs consumption (“treated prevalence”), and 3) the evolution of the average "vintage"
The RAMQ database management of patients with acromegaly: An analysis based on PDB47

Key role in the reduction of hospital costs and in-patient admissions attributable to difficult to quantify factors notwithstanding, our analysis suggests that in the last decade the availability of new OADs in the Portuguese market may have played a key role in the reduction of hospital costs and in-patient admissions attributable to diabetes.

**PD684**

**EFFECTS OF PATIENT-REPORTED NON-SEVERE HYPOGLYCEMIA ON HEALTH CARE RESOURCE USE AND WORK-TIME LOSS IN SEVEN EUROPEAN COUNTRIES**

**OBJECTIVES:** Limited data exist on the use of health care resources due to hypoglycemia induced by antidiabetic treatment. This study investigated the occurrence and implications of non-severe hypoglycemic events (NSHE) in type 1 (T1) and type 2 (T2) diabetes patients and their impact on health care resource use. **METHODS:** Insulin-treated T1 and T2 patients from Austria, Denmark, Finland, The Netherlands, Norway, Sweden and Switzerland were invited, primarily via online panels, to complete four questionnaires at weekly intervals. Data were analyzed by country demographics, occurrence of NSHE in all patients, and hypoglycemia-related resource use. NSHE was defined as an event with symptoms of hypoglycemia, with or without blood glucose measurement (BGM), or low BGM without symptoms, which the patient could manage without assistance. **RESULTS:** In total, 3956 patients with diabetes entered the study (7% completing all four questionnaires). T1 and T2 patients experienced a mean of 1.7 and 0.5 events/pt-week. Overall employment rate was 48%. Following the last NSHE, the proportion of patients contacting a health care professional was 8% among T2 patients (Austria: 10%, Denmark: 7%, Finland: 10%, Norway: 6%, The Netherlands: 8%, Sweden: 6%, Switzerland: 14%) and 13% among T1 patients (Austria: 3%, Denmark: 1%, Finland: 3%, Norway: 2%, The Netherlands: 3%, Sweden: 1%, Switzerland: 5%). There was a mean increase in BG test use in the week following the last NSHE of 1.9 across countries (Austria: 2.6, Denmark: 1.3, Finland: 2.1, The Netherlands: 2.0, Norway: 1.8, Sweden: 1.5, Switzerland: 1.9). Among employed patients, loss of work-time after the last hypoglycemic event was reported by 10% (Austria: 10%, Denmark: 9%, Finland: 17%, The Netherlands: 11%, Norway: 9%, Sweden: 12%, Switzerland: 6%). Between countries the average work-time loss among those losing work time ranged from 1.3 to 6.7 hours. **CONCLUSIONS:** NSHE was associated with use of health care resources and work-time loss in the countries studied.

**PD851**

**RESOURCE UTILIZATION IN THE MANAGEMENT OF ACROMEGALY: AN ANALYSIS FROM SOUTHWESTERN ONTARIO**

**OBJECTIVES:** To examine the demographic and clinical characteristics in patients with Cushing’s disease (CD) and to estimate the health care resource utilization associated in these patients in Ontario. **METHODS:** Retrospective analysis of resource use captured in the Southwestern Ontario Database from 2001 to June 2011. A total of 86 patients (72% females) were analyzed based on diagnosis, out of a total population of 523,718 patients. A matched control group (CG) (N=86) was also included from the general population. **RESULTS:** Age of patients at the time of diagnosis was 43±24.5 years (mean±SD). Baseline comorbidities (CM) included hypertension (67.4%), dyslipidemia (25%), diabetes (23.3%), renal calculi (17.4%), visual disturbance (20.9%), carpal tunnel syndrome (19.8%) and osteoporosis (11.6%). Distribution of co-morbidities was statistically significantly higher than general population (p-value <0.05); 27% had 2 CM and 35% had 3 or more CM. Baseline Urinary Free Cortisol (UFC) level was 207.7±118.3 nmol/day (UFC ULN=110). Primary treatment options included transphenoidal surgery (TSS), bilateral adrenalectomy (BLA), radiosurgery and medical therapy, used in 79%, 6%, 23% and 12% of patients respectively. Secondary treatment was surgical in 37% of patients: consisting of repeat TSS in 21%, BLA in 10% and R in 6%, while the majority received medical therapy (52%). Average length of stay was 6 days (SD=4) and 9 days (SD=7) for TSS and BLA respectively. Medical therapy, prescribed as monotherapy, included ketoconazole (36%), cabergoline (21%), bromocriptine (20%) and mitotane (13%). Health care provider interactions per year for CD post intervention compared to CG were: Emergency Room visit: 1.01 vs. 0.069; clinic visits: 4.86 vs. 1.89; specialist clinic visits: 0.57 vs. 0.92; and hospitalizations: 0.34 vs. 0.15. **CONCLUSIONS:** This retrospective analysis of patients diagnosed with Cushing’s disease indicates that they require substantially higher resource use and experience a high burden of comorbidities.

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