

from a German perspective. **METHODS:** The Economic Assessment of Glycemic Control and Longterm Effects (EAGLE) model provides micro-simulations of virtual patients in 1-year cycles. Outcomes presented as cumulative incidence include micro- and macrovascular complications and death. Subsequent cost calculations are constructed from the results. Main factors driving the development of complications are HbA1c, blood pressure, lipids, age, diabetes duration and treatment. Baseline characteristics of each cohort (1000 patients) were: age  $64 \pm 11$  years, diabetes duration  $10 \pm 8$  years, 49% male, hypertension prevalence 80%, mean HbA1c  $7.7 \pm 1.8\%$ , HDL 1.11 mmol/l, LDL 3.84 mmol/l. For comparison a) HbA1c treatment targets of 7.0% (UK) and 6.4% (DDG) were simulated. For comparison b) additionally control of LDL, HDL and blood pressure was simulated according to the two guidelines. All cost data were provided by CoDiM study. Long-term outcomes, risk reductions and costs were compared from the German perspective. **RESULTS:** More strict glycaemic, blood pressure and lipid control according to the DDG guidance reduces longterm complications substantially compared to the UK guidance: incidences for proliferative retinopathy, ESRD and MI were lower by 14%, 23% and 11%. Accordingly, associated cost savings were 26T€, 366T€ and 148T€ following the DDG guidance. Savings in the treatment of complications amount to 965T€. Inclusion of diabetes treatment cost results in overall savings of 186T€. **CONCLUSION:** Guidance for diabetes treatment vary between EU-countries. The simulation analyses from the German perspective demonstrated that preferably a more stringent guidance should be applied with respect to long-term outcomes and costs.

**DB3**

**CLINICAL AND PATIENT REPORTED OUTCOMES OVER THE FIRST 6 MONTHS OF INSULIN THERAPY IN PATIENTS WITH TYPE 2 DIABETES IN GERMANY AND THE UNITED KINGDOM: DATA FROM THE INSTIGATE STUDY**

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**OBJECTIVES:** An objective of the INSTIGATE study is to describe clinical and patient reported outcomes after 6 months of insulin therapy in patients with type 2 diabetes. This abstract presents data from patients enrolled in Germany and UK. **METHODS:** INSTIGATE is an ongoing prospective European observational study investigating patients with type 2 diabetes who initiated insulin during usual care. Data on outcomes were collected at baseline and at 3 and 6 months following insulin initiation. **RESULTS:** A total of 509 patients were enrolled in Germany and UK. Six-month follow-up data was collected from 457 patients. Clinical outcomes, mean (SD), changed from baseline to six months post insulin initiation as follows: FBG improved from 11.5 (4.7) mmol/l to 6.9 (1.8) mmol/l in Germany and from 13.3 (4.9) mmol/l to 10.2 (4.3) mmol/l in UK. HbA1c improved from 9.2 (2.0)% to 6.9 (1.0)% in Germany and from 10.2 (1.7)% to 8.4 (1.4)% in UK. BMI increased from 30.5 (6.0) kg/m<sup>2</sup> to 31.0 (5.9) kg/m<sup>2</sup> in Germany and from 31.9 (6.6) kg/m<sup>2</sup> to 32.5 (5.6) kg/m<sup>2</sup> in UK. Improvements were seen in health status using the EQ-5D; in Germany the median visual analogue scale score increased from 70 to 79 and in UK from 65 to 70. The number of patients self-reporting hypoglycaemic episodes increased as follows for German and UK patients respectively; in the 3 months before insulin initiation 9 (3.5%) and 13 (5.1%) patients experienced a total of 31 episodes in each country, and in the 3 months before the six-month follow-up

visit 26 (11.2%) and 57 (25.4%) patients experienced a total of 153 and 221 episodes. **CONCLUSION:** Differences in baseline characteristics and initial insulin regimes prescribed in UK and German patients were observed. Glycaemic control and health-related quality-of-life improved in the 6 months following insulin initiation. However BMI and rates of hypoglycaemia increased.

**DB4**

**TREATMENT ADHERENCE AND BARRIERS TO ADHERENCE ARE ASSOCIATED WITH GLYCEMIC CONTROL AND EXPERIENCE OF HYPOGLYCEMIA AMONG PATIENTS WITH TYPE-2 DIABETES MELLITUS (T2DM) ON ORAL ANTI-HYPERGLYCEMIC AGENTS (OHA) IN EUROPE**

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**OBJECTIVES:** To assess the association of adherence to treatment with glycaemic control and patient experience of hypoglycaemic symptoms in adult T2DM patients, who added a sulfonylurea(SU) or glitazone(PPAR) to metformin(MF) monotherapy. **METHODS:** A retrospective clinical chart review and patient survey during physician visit (June'06–Feb'07) was conducted in 7 countries (Finland, France, Germany, Norway, Poland, Spain, UK). Patients recruited (aged 30 years) added SU or PPAR $\alpha$  to MF. A1C refers to the most recent measurement within a year prior to enrollment. Glycaemic control was defined according to the IDF (2005) recommendations as A1C < 6.5%. Questionnaires were used to ascertain experience of hypoglycaemia and adherence to treatment. A questionnaire published by Grant et al. (2003), was modified and used to measure patient reported adherence to OHA. **RESULTS:** A total of 1709 patients were included in this analysis. Average age 63 (SD = 11) years, 45% female, and 50% were diagnosed with diabetes > than 7 years. The mean A1C was 7.1% (SD = 1.1), while 28% (477 patients) had adequate glycaemic control. In all, 652 (38%) reported hypoglycaemic symptoms. Sixty-nine percent reported that they always take their diabetes medications exactly as prescribed. Reported barriers to adherence were: 1) being unable to follow plan for diabetes (45.5%); 2) bothered by adverse effects (40.9%); 3) being unsure about physician instructions (32.9%); and 4) having difficulty filling prescriptions (23.6%). Experience of hypoglycaemic symptoms was associated with higher odds of reporting: a barrier due to adverse effects (Odds Ratio (OR): 2.54; 95% CI: 2.1–3.1); unsure of doctor's instructions (OR: 1.34; 95% CI: 1.1–1.7); unable to follow plan for diabetes (OR: 1.3; 95% CI: 1.1–1.6); having difficulty filling prescriptions (OR: 1.4; 95% CI: 1.1–1.7). Patients always taking medications exactly as prescribed had higher odds of having adequate glycaemic control (OR: 1.3; 95% CI: 1.05–1.68). **CONCLUSION:** Adequate glycaemic control was found in 28% of patients and 38% of all patients experienced hypoglycaemic symptoms. Experience of hypoglycaemic symptoms was associated with barriers to adherence, while adherence to therapy improved the odds of having adequate glycaemic control.