neonatal hypoglycaemia 53%, foetal loss 11%, preterm delivery 22%, obstetric complications 33%, congenital malformations 5%, birth weight >4000 g 20%, and other adverse events 12%. The mean inpatient cost per subject was £4589 (SD = 3961). The main costs were admission for pre-term infants (£3089, SD = 3508), adverse events and obstetric complications (£532, SD = 839), and normal delivery costs (£968, SD = 328). The mean cost was around four times the average cost of delivery in a UK hospital (£1078). In England and Wales around 5250 women with type 1 diabetes give birth every year. The excess cost of these births to the NHS is around £18.4 million per annum. CONCLUSION: Inpatient costs are high in pregnant women with type 1 diabetes. Successful intervention in this group could improve health outcomes and substantially reduce cost.

PDB45
THE RELATIONSHIP BETWEEN GLYCEMIC CONTROL AND DIABETES-RELATED COSTS: EVIDENCE FROM A CLAIMS DATABASE
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OBJECTIVES: Hemoglobin A1c (HbA1c), a clinical measure of ambient blood glucose concentrations over the previous 3 month time period, is recognized as a surrogate measure for the risk of complications among patients with diabetes. The purpose of this research is to quantify the impact of changes in glycemic control on diabetes-related medical costs.

METHODS: Data from the i3 LabRx Database were used for this study. Individuals were included in the analysis if they had two diagnoses of type 2 diabetes (first diagnosis identified as the index date), had one valid HbA1c test result recorded in the six months prior to the index date and had at least one valid HbA1c test result recorded in the twelve months post index date (N = 2,239). Multivariate regressions were used to examine the relationship between the change in HbA1c from the post-period to the pre-period on diabetes related costs, while controlling for patient characteristics, general health status, comorbidities, timing between the post and pre-period HbA1c tests, and initial value of HbA1c.

RESULTS: Thirty percent of the individuals in this sample were found to have an initial HbA1c value greater than 7. Results from the multivariate analyses indicate that after controlling for other factors which may impact diabetes-related costs, a one point reduction in HbA1c value was associated with a $433 reduction in total one-year diabetes-related medical costs (p = 0.0033). In addition, a one point reduction in HbA1c value was also associated with a significant reduction in diabetes-related outpatient costs ($127, p = 0.0268) as well as a significant reduction in diabetes-related outpatient prescription drug costs ($293, p < 0.0001). CONCLUSION: Evidence from this analysis indicates that the direct medical costs of treating type 2 diabetes are significantly reduced as HbA1c values are reduced. These results highlight that there are savings associated with a one point reduction in patients’ glycemic control.

PDB46
LONG-TERM ECONOMIC OUTCOMES ASSOCIATED WITH INSULIN ASPART VERSUS HUMAN BOLUS INSULIN IN TYPE 2 DIABETES PATIENTS IN THE SWEDISH SETTING
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OBJECTIVES: To evaluate long-term economic outcomes in the Swedish setting for type 2 diabetes patients treated with either mealtime insulin aspart (IAsp, NovoRapid) or human insulin (HI) as part of basal-bolus therapy, based on findings from the European PREDICTIVE study (Predictable Results and Experience in Diabetes through Intensification and Control to Target: an International Variability Evaluation). METHODS: The CORE Diabetes Model, a published and validated computer simulation model was used to project long-term outcomes and account lifetime costs for patients receiving either IAsp or HI.

COST-UTILITY OF INSULIN DETEMIR VERSUS NPH FOR TYPE 1 DIABETES PATIENTS TREATED WITH BASAL-BOLUS THERAPY IN A FRENCH SETTING. A MODELING EVALUATION BASED ON RESULTS FROM A META-ANALYSIS OF THREE CLINICAL TRIALS
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OBJECTIVES: The aim of this study was to estimate the cost-utility of type 1 diabetes patients treated with detemir based basal-bolus therapy versus neutral protamine Hagedorn (NPH) insulin based basal-bolus therapy in France using results obtained from a meta-analyses of three clinical trials. The meta-analyses demonstrated a short-term improvement for detemir over NPH (0.13% points lower), a decrease in hypoglycemic events (by 4%) and lower body mass index (BMI) (0.21 kg.m-2).

METHODS: A published, validated, peer-reviewed computer simulation model of diabetes (the CORE Diabetes Model) was used to project short-term results obtained from the fixed-effects meta-analysis to long-term clinical and cost outcomes (including life quality adjusted life expectancy, incidence of complications, and direct medical costs), when basal detemir or NPH is used in combination with either insulin aspart or human soluble insulin. Probabilities of complications were derived from landmark clinical and epidemiological studies. The costs of treating complications and appropriate baseline comorbidities were retrieved from published sources and France specific mortality rates applied. Total direct medical costs (complications + treatment costs) were projected over patient lifetimes, and future costs and clinical benefits discounted at 3% per annum.

RESULTS: Therapeutic benefits of superior glycemic control, lower hypoglycemic event rates and reduced BMI associated with detemir based basal-bolus therapy led an increase in quality-adjusted life expectancy, incremental cost-effectiveness ratio which falls well below a range considered to represent good value for money (<£50,000/QALY gained).