patients with type 2 diabetes and nephropathy over 3.4 years. The clinical outcome data were based on the results of the RENAAAL trial. Direct medical costs referred to the purchase costs of losartan and the cost of National Health Service (NHS) hospitalization. The costs were discounted back at an annual rate of 3%. Also sensitivity analysis was performed. RESULTS: RENAAAL study establishes that losartan along with conventional antihypertensive treatment as needed, confers strong renal protection in patients with type-2 diabetes and nephropathy. Globally, the total cost over 42 months of follow-up was estimated at $9,802,497 in the losartan and $13,305,347 in the placebo group, resulting in a cost saving of $3,502,890 per patient. Results were robust to both clinical and economic variables. CONCLUSIONS: In addition to the medical benefit, this analysis demonstrated the economic relevance of treatment with losartan in type 2 diabetic patients with nephropathy.

**PDB30**

**CSII COMPARED TO MDI: A HEALTH ECONOMIC ANALYSIS IN THE GERMAN HEALTH CARE SETTING**

**OBJECTIVES:** A recently published health technology appraisal (NICE guidance 57) on continuous subcutaneous insulin infusion (CSII) therapy considered observational studies to complement RCTs in the assessment of effectiveness of CSII in type 1 diabetes patients. Observational studies showed significantly higher improvements in HbA1c levels with CSII compared to multiple daily injections (MDI) as available RCTs did. Furthermore, a statistically significant decrease of severe hypoglycemic episodes has been stated. Our model based analysis assessed the clinical and economical impact in inpatients with T1DM. METHODS: The following baseline assumptions were applied within our validated type 1 diabetes model: (1) patient characteristics at simulation start (age 26 years, duration of diabetes 12 years, baseline HbA1c 8.7%); (2) a HbA1c improvement by CSII compared to MDI of 0.6% (RCTs) and 1.2% (observational); (3) reduction of severe hypoglycemic events by 50%; (4) costs for insulin pumps $12,800, respectively. The results of these analyses are robust to the variation of numerous parameters and assumptions.

**RESULTS:** Within a simulated time horizon of 55 years, smoking cessation with NRT is the dominant strategy; in all indications, NRT leads to additional QALY at lower costs compared to Placebo/bo/bo intervention. NRT remains the dominant strategy in most sensitivity analyses. The 50% years of highest influence on the outcome are the effectiveness of both strategies and additionally considered costs for smokers. CONCLUSIONS: NRT is a cost-effective treatment option for smoking cessation compared to Placebo or no intervention in patients with CHD, diabetes and COPD. The results of these analyses are robust to the variation of numerous parameters and assumptions.

**PDB31**

**COST-EFFECTIVENESS ANALYSIS OF VOGLIBOSE FOR PREVENTION OF TYPE-2 DIABETES MELLITUS IN JAPANESE INDIVIDUALS WITH IMPAIRED GLUCOSE TOLERANCE**

**OBJECTIVES:** To compare the direct treatment costs in insulin-naïve type-2-diabetics starting a basal supported oral therapy (BOT) with either insulin glargine (GLA) or NPH-insulin (NPH) over 10 years focusing on the different persistence to these insulins. The ICERs were calculated for each study population by use of separate Markov-Models. Patient started the models in the age of 45 years and undertake a single quit attempt with NRT or Placebo/bo intervention. According to the likelihood of success, the diseases’ long-term natural courses are simulated for either smokers or ex-smokers. Input data such as success rate of smoking quit attempt, transition probabilities, costs (base year 2008) are based on systematic literature researches and internal calculations. From the perspective of the German Statutory Health System, incremental costs per life-year gained (QALY) are calculated. Assumptions and uncertain parameters are set conservatively and tested in multiple sensitivity analyses.

**RESULTS:** CONCLUSIONS: The CORE Diabetes Model (CDM) was used to determine the incremental cost-effectiveness ratio (ICER) of CSII compared with MDI among adult patients with T1DM in Italy. The primary input variable was change in HbA1c, and assumed to be a 1.2% improvement for CSII compared to MDI in a cohort of Italian T1DM patients with an average HbA1c, baseline value of 8.95%. It was also assumed that CSII patients had 50% less hypoglycemic events compared with MDI patients. A series of Markov constructs simulated the progression of diabetes-related complications. The average annual cost for CSII and MDI were $569,920 and $273,741, respectively. The costs were derived from Italian-specific sources and other published data. A 60-year time horizon and a discount rate of 3.0% per annum on costs and clinical outcomes were used. RESULTS: Treatment with CSII was associated with improvement in life expectancy of 0.83 years and a quality adjusted life year (QALY) of 1.063 years vs. MDI with corresponding ICERS of $34,541 per life-year and $31,879 per quality-adjusted life year (QALY) gained for CSII compared with MDI. The cumulative incidence of end-stage renal disease (ESRD) was reduced by 18% (RR = 0.816) with a NNT of 32 patients to avoid one case of ESRD. While cumulative incidence of peripheral vascular disease (PVD) was reduced by 14% (RR = 0.856); with a NNT of 46 patients to avoid one case of PVD. CONCLUSIONS: Setting the willingness to pay at €40,000/QALY (based on a €30,000 NICE-threshold), CSII is a cost-effective treatment option when compared to MDI for adult patients with T1DM in Italy.

**PDB32**

**COST-EFFECTIVENESS OF NICOTINE REPLACEMENT THERAPY (NRT) FOR SMOKING CESSTATION IN PATIENTS WITH CORONARY HEART DISEASE (CHD), DIABETES MELLITUS TYPE 2 (DM2) AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) IN GERMANY**

**OBJECTIVES:** CHD, DM2 and COPD constitute an enormous burden of disease due to high prevalence, severe co-morbidities, increased mortality and high costs for society. Smoking is a main risk factor for developing the mentioned diseases and has a major impact on the disease development. Aim of the presented study was to analyze the incremental cost-effectiveness ratios (ICER) of smoking cessation with NRT compared to Placebo/bo interventions for patients with CHD, DM2 and COPD.

**METHODS:** The ICERs were calculated for each study population by use of separate Markov-Models. Patient started the models in the age of 45 years and undertake a single quit attempt with NRT or Placebo/bo intervention. According to the likelihood of success, the diseases’ long-term natural courses are simulated for either smokers or ex-smokers. Input data such as success rate of smoking quit attempt, transition probabilities, costs (base year 2008) are based on systematic literature researches and internal calculations. From the perspective of the German Statutory Health System, incremental costs per life-year gained (QALY) are calculated. Assumptions and uncertain parameters are set conservatively and tested in multiple sensitivity analyses.

**RESULTS:** Within a simulated time horizon of 55 years, smoking cessation with NRT is the dominant strategy; in all indications, NRT leads to additional QALY at lower costs compared to Placebo/bo intervention. NRT remains the dominant strategy in most sensitivity analyses. The 50% years of highest influence on the outcome are the effectiveness of both strategies and additionally considered costs for smokers. CONCLUSIONS: NRT is a cost-effective treatment option for smoking cessation compared to Placebo or no intervention in patients with CHD, diabetes and COPD. The results of these analyses are robust to the variation of numerous parameters and assumptions.

**PDB33**

**A COST-EFFECTIVENESS ANALYSIS OF CONTINUOUS SUBCUTANEOUS INSULIN INJECTION VS. MULTIPLE DAILY INJECTIONS IN TYPE-1 DIABETES PATIENTS IN ITALY**

**OBJECTIVES:** To project long term costs and outcomes for continuous subcutaneous insulin infusion (CSII) compared with multiple daily injections (MDI) in adult type-1 diabetes mellitus (T1DM) patients in Italy from the National Health Service (NHS) perspective. METHODS: The CORE Diabetes Model (CDM) was used to determine the incremental cost-effectiveness ratio (ICER) of CSII compared with MDI among adult patients with T1DM in Italy. The primary input variable was change in HbA1c, and assumed to be a 1.2% improvement for CSII compared to MDI in a cohort of Italian T1DM patients with an average HbA1c, baseline value of 8.95%. It was also assumed that CSII patients had 50% less hypoglycemic events compared with MDI patients. A series of Markov constructs simulated the progression of diabetes-related complications. The average annual cost for CSII and MDI were $569,920 and $273,741, respectively. The costs were derived from Italian-specific sources and other published data. A 60-year time horizon and a discount rate of 3.0% per annum on costs and clinical outcomes were used. RESULTS: Treatment with CSII was associated with improvement in life expectancy of 0.83 years and a quality adjusted life year (QALY) of 1.063 years vs. MDI with corresponding ICERS of $34,541 per life-year and $31,879 per quality-adjusted life year (QALY) gained for CSII compared with MDI. The cumulative incidence of end-stage renal disease (ESRD) was reduced by 18% (RR = 0.816) with a NNT of 32 patients to avoid one case of ESRD. While cumulative incidence of peripheral vascular disease (PVD) was reduced by 14% (RR = 0.856); with a NNT of 46 patients to avoid one case of PVD. CONCLUSIONS: Setting the willingness to pay at €40,000/QALY (based on a €30,000 NICE-threshold), CSII is a cost-effective treatment option when compared to MDI for adult patients with T1DM in Italy.