healthcare costs or all-cause medical costs in either sample. **CONCLUSIONS:** This real-world study suggests that short-term weight loss is associated with attainment of HbA1c<7 levels and decreased diabetes-related costs in obese population with no prior CVD over subsequent 12 months.

PDB49

ECONOMIC BURDEN OF TYPE 2 DIABETES MELLITUS TREATMENT STRATEGIES: A COST CONSEQUENCE ANALYSIS OF SITAGLIPTIN VS SULFONYLUREAS IN LOMBARDY REGION

Genovese S[1], Torre E[2], Baccetti F[3]
[1]*IRCCS Multimedica, Milan, Italy,* [2]*Endocrinologia, Diabetologia e Malattie metaboliche ASL 3 Genovese, Genova, Italy,* [3]*SD Diabetologia e Malattie Metaboliche ASL 1 Massa Carrara, Massa, Italy*

OBJECTIVES: Type 2 diabetes mellitus (DM) represents an important public health issue and it is responsible for a significant epidemiologic and economic burden. A cost consequence analysis (CN), aimed at assessing the economic impact of sitagliptin (SITA), compared with sulfonylureas –SU (as second line therapy- add on to metformin) was peformed on the basis of the value based pricing approach. **METHODS:** A CN of SITA vs SU (glibenclamide5mg) was carried out, on a cohort of 1000 diabetic patients, from both the Lombardy Regional Health Service (RHS) and societal perspectives by considering 12 and 36 months time horizons. Direct (drug, automonitoring glycemic control, visits, hypoglicaemic- HYPOS- and CV events, and durability costs) and indirect costs have been considered. Epidemiologic and effectiveness data have been collected through available literature, trials and meta-analyses. Economic data have been retrieved through local/regional sources, tariffs and from available literature. **RESULTS:** The CN analysis shows that SITA+metformin vs glibenclamide+metformin represents a cost saving alternative, over 3 years time horizon, as higher drug costs of SITA are offset by : - lower glycemic control, complications and durability costs resulting in a saving of almost €9.000 from RHS perspective - lower productivity loss related to major cardiovascular and to HYPOS, leading to a saving of about €100.000 from societal perspective. Also, SITA vs SU would provide, from both perspectives, -236 not severe and -54 severe HYPOS and -14 CV events. The analysis performed over 12 months time horizon shows that SITA+metformin represents a sustainable alternative from both RHS and societal perspectives, by leading to a saving in terms of HYPOS 136 (118 not severe and 18 severe) and 7 CV events. **CONCLUSIONS:** The analysis performed shows that SITA represents a sustainable and cost saving alternative for the management of type 2 DM from both clinical and economic perspectives in Lombardy.

PDB50

COST-EFFECTIVENESS ANALYSIS OF EXENATIDE ONCE-WEEKLY VERSUS DULAGLUTIDE, LIRAGLUTIDE AND LIXISENATIDE FOR THE TREATMENT OF TYPE 2 DIABETES MELLITUS: AN ANALYSIS FROM THE UK NHS PERSPECTIVE

Charokopou M[1], Chuang L[1], Verheggen B[1], Gibson D[2], Grandy S[3], Kartman B[4]
[1]*Pharmerit International, Rotterdam, The Netherlands,* [2]*AstraZeneca, Luton, UK,* [3]*Astrazeneca Phamaceuticals , LP, Gaithersburg, MD, USA,* [4]*AstraZeneca, Mölndal, Sweden*

OBJECTIVES: Exenatide 2mg once-weekly (EQW) is a glucagon-like peptide-1 receptor agonist (GLP-1 RA). The objective was to assess the cost-effectiveness of EQW compared to the GLP-1 RAs dulaglutide 1.5mg QW, liraglutide 1.2mg and 1.8mg once-daily (QD), and lixisenatide 20ug QD for the treatment of adult patients with type 2 diabetes mellitus (T2DM) not adequately controlled on metformin. **METHODS:** This analysis utilized the Cardiff Model, a previously published T2DM disease model. Treatment effects were from a network-meta-analysis. Quality-adjusted life years (QALYs) were calculated, with health-state utilities applied to weight changes, hypoglycemia, and T2DM-related complications. Costs (British pounds, £) included medication and T2DM-related complications. The model was run over a 40-year time horizon. Costs and QALYs were discounted at 3.5% annually. Probabilistic sensitivity analysis (PSA) was performed. **RESULTS:** In all comparisons, EQW was associated with a QALY gain per patient; 0.046 (95% confidence interval [CI]: 0.036; 0.056) versus dulaglutide 1.5mg; 0.102 (95% CI: 0.093; 0.112) versus liraglutide 1.2mg; 0.043 (95% CI: 0.034; 0.053) versus liraglutide 1.8mg; and 0.074 (95% CI: 0.064; 0.083) versus lixisenatide 20ug. Cost per patient was lower for EQW than for dulaglutide 1.5mg (-£885; 95% CI: -£942; -£827) and liraglutide 1.8mg (-£2,085; 95% CI: -£2,143; -£2,028). EQW was therefore projected to dominate (i.e, lower costs and QALYs gained) dulaglutide 1.5mg and liraglutide 1.8mg. The cost difference per patient between EQW and liraglutide 1.2mg and EQW and lixisenatide 20ug was £103 (95% CI: £46; £160) and £918 (95% CI: £861; £975), respectively. Cost per QALY gained with EQW versus liraglutide 1.2mg and lixisenatide 20ug was £1,004 and £12,440, respectively. In the PSA, the probability that EQW is cost-effective ranged from 76-99% across all comparisons, at a willingness-to-pay threshold of £20,000 per QALY gained. **CONCLUSIONS:** Results suggest that exenatide 2mg once-weekly is a cost-effective therapeutic option for the treatment of T2DM in adults inadequately controlled on metformin alone.

PDB51

THE COST-EFFECTIVENESS (CE) OF INTRAVITREAL AFLIBERCEPT (IVT-AFL) IN THE TREATMENT OF DIABETIC MACULAR EDEMA (DME) IN TURKEY

Deger C[1], Ozdemir O[2], Eldem B[3], Unlu N[4], Alp MN[5], Saatci AO[6], Ozmert E[7], Altintas AK[8], Sermet F[7], Erdal E[1], Sar C[1], Asan S[1], Sumer F[1], Parali E[1], Ozel O[1]
[1]*Bayer Turk Kimya San. Ltd. Sti., Istanbul, Turkey,* [2]*Yorum Consulting Ltd., Istanbul, Turkey,* [3]*Hacettepe University Faculty of Medicine, Ankara, Turkey,* [4]*Ankara Training & Research Hospital, Ankara, Turkey,* [5]*Ankara Numune Training & Research Hospital, Ankara, Turkey,* [6]*Dokuz Eylul University, Faculty of Medicine, Izmir, Turkey,* [7]*Ankara University, Faculty of Medicine, Ankara, Turkey,* [8]*Ankara Ulucanlar Eye Training & Research Hospital, Ankara, Turkey*

OBJECTIVES: IVT-AFL is indicated for the treatment of visual impairment due to DME. The objective of this analysis was to evaluate the CE of IVT-AFL compared with ranibizumab in DME in Turkey. **METHODS:** The CE model is a Markov state transition model that has 3 separate phases (efficacy, maintenance, rest of life) chosen to adequately reflect the typical vision changes in a treated DME patient. The model features 64 health states for every combination of study/nonstudy eye, and a health state representing death, derived from the VIVID/VISTA-DME and RESTORE/REVEAL studies. Economic inputs were based on the experts' opinions.2 The primary and secondary endpoints for the study were life years gained and quality-adjusted life years (QALY), and years with 1 eye blind, respectively. Incremental cost-effectiveness ratios (ICER) were calculated per QALY and years with 1 eye blind. Analyses were conducted from the payer perspective and time horizon was lifetime. All costs were calculated in Turkish Lira (TL). **RESULTS:** Total annual costs associated with IVT-AFL and ranibizumab were 15,315 and 14,791 TL, respectively. QALYs were 7.343 with IVT-AFL and 7.295 ranibizumab. According to the results of the analysis, IVT-AFL is a cost effective treatment option when compared with ranibizumab at a cost-effectiveness threshold of 26,415 TL (calculated threshold from developing country defined as 3-fold of annual income per capita, per the World Health Organization). The ICER of IVT-AFL versus ranibizumab was 10,866 TL/QALY. Years with 1 eye blind were 0.416 with IVT-AFL and 0.647 with ranibizumab, with a difference of 0.231 year in favor of IVT-AFL, giving an ICER of 2268 TL/years with 1 eye blind. **CONCLUSIONS:** IVT-AFL may be a cost-effective treatment option when compared with ranibizumab for treatment of DME in Turkey.

PDB53

THE LONG-TERM COST-EFFECTIVENESS OF TWICE-DAILY EXENATIDE WITH INSULIN GLARGINE VERSUS ONCE-DAILY LIRAGLUTIDE WITH INSULINE DETEMIR IN ADULT PATIENTS WITH TYPE 2 DIABETES IN RUSSIA

Krysanov I[1], Tiapkina M[2]
[1]*Postgraduate Medical Institute, Moscow National University of Food Production, Moscow, Russia,* [2]*I.M. Sechenov First Moscow State Medical University, Moscow, Russia*

OBJECTIVES: to assess the cost-effectiveness of twice daily (TD) 10 μg exenatide with insulin glargine (EXE) vs once-daily (QD) liraglutide 1.2 mg or 1.8 mg both with insulin detemir (LIRA 1.2 or LIRA 1.8) in patients with type 2 diabetes mellitus (T2DM). **METHODS:** the Exenatide Cost-Effectiveness Model, a validated computer simulation model, was adapted to the Russian healthcare setting. Patient and intervention effects data were gathered from a clinical trials (Scott et al 2013, Buse et al 2011), comparing QD LIRA 1.2 mg, 1.8 mg and EXE 10 μg TD, as add-on to insulin glargine or detemir. The full costs were calculated for 1-st line therapy, based on published and local sources (2014).This includes the costs of drug acquisition as well as appropriate inpatient, outpatient and primary care management costs (associated with maintenance and events). In this study we simulated disease progression and treatment effects per cohort 1,000 patients for 10 years period. **RESULTS:** over a simulation period, treatment with EXE vs LIRA 1.2 drove a mean increase in discounted quality-adjusted life expectancy of 0.1 (0.008; 0.015) quality-adjusted life years (QALYs), whereas therapy with EXE vs LIRA 1.8 decrease of 0.1 (-0.018; -0.011) QALYs. When compared with LIRA 1.2, EXE was the dominant strategy, i.e. less costly (-$484) and more effective. When compared to LIRA 1.8, EXE was less costly (-$1,500), but less effective. The incremental cost-effectiveness ratio (ICER) for LIRA 1.8 vs EXE was estimated at $100,941 per QALY gained, that more greater than willingness-to-pay (WTP) threshold for Russia in 2014 $36,373. In this case more cost-effective strategy was EXE with insulin glargine. **CONCLUSIONS:** at a WTP threshold of $36,373/QALY exenatide is likely to be a cost-effective option for the treatment of T2DM in a Russian setting.

PDB54

EVALUATING THE COST-EFFECTIVENESS OF GLP-1 RECEPTOR AGONISTS FOR THE TREATMENT OF TYPE 2 DIABETES IN THE UK

Ashley D[1], Vega G[1], Hunt B[2], Valentine WJ[2]
[1]*Novo Nordisk Ltd., Gatwick, UK,* [2]*Ossian Health Economics and Communications, Basel, Switzerland*

OBJECTIVES: Key challenges in the adequate management of type 2 diabetes include maintaining glycemic control whilst minimizing the risk of hypoglycemia, without increasing body weight. Glucagon-like peptide-1 (GLP-1) receptor agonists provide a multi-factorial approach to treatment, compared with traditional glucocentric approaches. The present analysis aimed to compare the cost-effectiveness of GLP-1 receptor agonists for the treatment of diabetes in the UK. **METHODS:** Changes in glycated hemoglobin, blood pressure and body mass index upon initiation of liraglutide 1.2mg, exenatide BID and lixisenatide were taken from a network meta-analysis of 13 randomized controlled trials evaluating the efficacy and safety of GLP-1 receptor agonists for the treatment of patients with type 2 diabetes uncontrolled on oral antidiabetic drugs. Patient lifetime projections of clinical outcomes and direct costs (taken from published UK-specific sources, 2013 GBP) were made in a cohort based on the LEAD-6 trial using a published and validated diabetes model. Outcomes were discounted at 3.5% annually. Sensitivity analyses were performed. **RESULTS:** Liraglutide was associated with improved quality-adjusted life expectancy versus exenatide (9.17 versus 9.16 quality-adjusted life years [QALYs]) and lixisenatide (9.17 versus 9.12 QALYs). Improvements were driven by improved glycemic control, leading to a reduced incidence of diabetes-related complications. Liraglutide was associated with reduced costs versus exenatide (GBP37,520 versus GBP37,607) with cost savings as a result of avoided diabetes-related complications entirely offsetting increased acquisition costs. Versus lixisenatide, liraglutide was associated with increased costs (GBP37,520 versus GBP37,126), driven by increased acquisition costs which were partially offset by reduced costs of treatment of complications. Based on the projected outcomes, liraglutide was found to be dominant over exenatide and associated with an incremental cost-effectiveness ratio of GBP7,367 per QALY gained versus lixisenatide. **CONCLUSIONS:** Liraglutide 1.2mg is likely to be considered cost-effective or cost-saving versus alternative GLP-1 receptor agonists for treatment of diabetes in the UK.

PDB55

COST-EFFECTIVENESS OF DAPAGLIFLOZIN AS ADD-ON TO METFORMIN FOR THE TREATMENT OF TYPE 2 DIABETES IN GREECE

Tzanetakos C[1], Tentolouris N[2], Kourlaba G[3], Maniadakis N[1]