glycemic control, leading to a reduced incidence of diabetes-related complications, including renal disease, cardiovascular disease, ophthalmic and diabetic foot complications. Liraglutide was associated with increased direct costs (EUR 56,628 versus EUR 52,450), driven by the acquisition cost of liraglutide. However, this was partially offset by the reduced cost of treating diabetes-related complications. Based on these estimates, liraglutide was associated with an incremental cost-effectiveness ratio of EUR 10,436 per QALY gained versus sitagliptin. CONCLUSIONS: Liraglutide 1.8 mg was projected to improve clinical outcomes over sitagliptin as a result of reduced incidence of diabetes-related complications. Liraglutide is likely to be cost-effective from a health care payer perspective in Spain.

PDB70 COMPARING THE PROJECTED COST PER HBA1C REDUCTION OF EXENATIDE QW VersUS LIRAGLUTIDE 1.8 MG FOR THE TREATMENT OF TYPE 2 DIABETES MELLITUS USING ALTERNATE DATA SOURCES Wang, C.; Ng, J.; Chang, W.-T. 1, Furnback, W. 1, Garrison L. 1
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OBJECTIVES: Glucagon-like peptide-1 receptor agonists (GLP-1Ra), such as exenatide once weekly (EQW) and liraglutide (LIRa), are FDA-approved as treatment for type 2 diabetes mellitus (T2DM). Head-to-head studies and meta-analyses of these agents have reached different conclusions about their relative effectiveness. METHODS: We developed a decision-analytic model to evaluate the likely incremental cost-effectiveness of EQW versus LIRa 1.8 mg in T2DM patients, with effectiveness measured as reduction in glycated hemoglobin (HbA1c). The model structure was built with Markov models and microcosting data (adverse events [AEs]) over a 26-week time horizon, and allows patients to discontinue treatment due to AEs (nausea, diarrhea, vomiting, constipation, dyspepsia) after 26 weeks. Patients discontinuing treatment are assumed to return to their baseline HbA1c. We compared the outcomes (cost per 1% and 2% reduction in HbA1c) of models populated with clinical data from a head-to-head 26-week randomized, controlled trial (DURATION-6) and meta-analysis conducted by Scott and colleagues (2012). Drug costs and other utilization costs were based on wholesale acquisition costs and published sources. RESULTS: For the base case, the projected total 6-month cost of EQW versus LIRA was $2,444 and $3,056, respectively. Using data from DURATION-6 and meta-analysis, compared with EQW, LIRA had a projected incremental cost per 1% reduction in HbA1c (ICER) of $3,262 and $18,578 over a 6-month time horizon, respectively. Compared with EQW, the projected 6-month cost per 0.2% reduction in HbA1c for LIRA was $652 and $3,716 based on data from DURATION-6 and meta-analysis, respectively. CONCLUSIONS: The projected cost per 1% reduction in HbA1c was lower with EQW than liraglutide 1.8 mg at 6 months. The difference in projected cost per HbA1c reduction varies significantly with the trial-based meta sources used. Real-world data are needed to resolve the current uncertainties.

PDB71 COST-EFFECTIVENESS ANALYSIS OF HCG AND HUMAN GONADOPTINS IN MEN WITH HYPOGONADOTROPIC HYPOGONADISM IN THE CONTEXT OF AN ASSISTED REPRODUCTION PROGRAM Chamberlain L. 1, 2
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OBJECTIVES: To evaluate the efficiency, in terms of incremental cost-effectiveness ratio (ICER), of human gonadotropins (hGn) and human gonadotropins drugs sold for male infertility due to hormonal disorder hypothalamic hyponadism (HH), whose female partner has or does not have infertility problems, in the context of an assisted reproduction program. hGn and human gonadotropin drugs were developed to assess ICER of hGn and human gonadotropins. Firstly, hGn was compared to no treatment; secondly; human gonadotropins in combination with hCG were compared to hCG used alone. Effectiveness was measured as pregnancy rate of ovulation induction respectively. Data were obtained from clinical studies, as well as efficacy of medical procedures. The proportion of couples, who needed fertility procedures, was determined according to experts’ opinion. A ministry of health perspective was taken. Costs of medications were based on acquisition costs in 2012 Canadian dollars. Costs of medical procedures, as intrauterine insemination (IUI), in vitro fertilisation (IVF) and intra-cytoplasmatic sperm injection (ICSI) were based on 2012 fees of Quebec’s physicians. The time horizons adopted were based on the durations of drug treatment in clinical studies. RESULTS: The use of hCG in comparison with no treatment is cost-effective with an ICER of 20,913€ per QALY gained versus sitagliptin and 300 mg dosage respectively) versus the aforementioned comparators using Swedish-specific data, where available. Direct and indirect costs were assumed to be 2012 Euro [1 Euro = 8.91 Swedish Krona] and an annual discount rate of 3% was applied on costs and effects. RESULTS: With inclusion of indirect costs the cost-effectiveness analyses indicate that in dual therapy when compared to sitagliptin as add-on to metformin, canagliflozin appears to dominate sitagliptin with average cost savings of 600 € and an average QALY gain of 0.063. As add-on to insulin canagliflozin is associated with dominant primary ICER of 0.054. In mono therapy canagliflozin is cost-effective compared to sitagliptin with an incremental cost-effectiveness ratio (ICER) of 1838 € per QALY. Probabilistic analysis of the four comparisons suggests a likelihood of above 50% that canagliflozin being cost-effective. Sensitivity analyses show that canagliflozin remains cost-effective when indirect costs were not included. CONCLUSIONS: Canagliflozin 100 mg and 300 mg (80/20 dose split) appears to be a cost-effective alternative when compared in dual therapy. Adding canagliflozin to insulin will be cost-effective compared with placebo. Canagliflozin is a cost-effective alternative to sitagliptin in mono therapy.

PDB73 ECONOMIC EVALUATION OF BLOOD GLUCOSE POINT-OF-CARE TESTING IN THE INTENSIVE CARE UNIT Steuten MG. 1, Kip M. 2, Hoedonsk M. 3, Montebane H. 4, Spronk P. 3, Schultz M. 3
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OBJECTIVES: Point-of-care testing of blood glucose (BG-PoCT) is essential for safe insulin infusion in critically ill patients. Costs associated with BG-PoCT are considered substantial, especially when more frequent monitoring is needed as with strict glycemic control (SGC). The objective of the present study was to evaluate the incremental cost-effectiveness of a strict BG-PoCT guideline versus a loose guideline, from a hospital perspective. METHODS: This is a secondary analysis of a general diabetes implementation project aiming for normal BG-ranges across normal BG ranged to sitagliptin and glimepiride, as add on to insulin. RESULTS: Initial costs were projected to improve clinical outcomes over sitagliptin as a result of reduced incidence of diabetes-related complications. Liraglutide is likely to be cost-effective from a health care payer perspective in Spain. Liraglutide 1.8 mg was projected to improve clinical outcomes over sitagliptin as a result of reduced incidence of diabetes-related complications. Liraglutide is likely to be cost-effective from a health care payer perspective in Spain.

PDB74 COST-EFFECTIVENESS OF SWITCHING TO BIPHASIC INSULIN ASPART FROM HUMAN PREMIX INSULIN IN TYPE 2 DIABETES IN CHINA Xiao J. 1, Rian X. 2, Zhang Y. 3, Yang L. 4
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OBJECTIVES: To evaluate long-term cost-effectiveness of switching from human premix insulin to biphasic insulin aspart (BIAsp) 30 in people with type 2 diabetes mellitus (T2DM) in China. METHODS: The previously published and validated IMS Core Diabetes Model was used to project life expectancy, quality-adjusted life years (QALYs) and total direct medical costs over 30 years from a societal perspective. Patient characteristics and treatment effects were obtained from Chinese subgroup (n=1191) in the A, chieve observational study. After treatment with BIAsp 30 over 30 weeks, patients’ HbA1c decreased by 1.6%, rate of major and minor hypoglycemia decreased by 0.51 and 4.32 events per patient-year respectively. Treatment costs were based on insulin doses (35.8 IU daily for human premix insulin and 36.1 IU for BIAsp 30) and market retail prices in China. Management (comanagement medications, screening programmes, etc) and complication costs were obtained from Chinese published data in 2011 and adjusted to the price level of 2012 with the consumer price index of China. Costs and life expectancy were used at 3% annually. One-way sensitivity analysis was performed. RESULTS: Switching to BIAsp 30 from human premix insulin was projected to reduce incidence of most diabetes-related complications, increase life expectancy by 0.732 years (12.457 vs 12.725 ) and improve quality-adjusted life years by 1.136 (32.39 vs 32.256) per patient-year. Costs for BG-PoCT were incorporated into the analysis. The model outcomes are most sensitive to changes in insulin cost length of stay. The model outcomes are most sensitive to changes in insulin cost length of stay. The model outcomes are most sensitive to changes in insulin cost length of stay. The model outcomes are most sensitive to changes in insulin cost length of stay. The model outcomes are most sensitive to changes in insulin cost length of stay.