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 QR VS LIRAGLUTIDE 1.8 MG FOR THE TREATMENT OF TYPE 2 DIABETES MELLITUS USING ALTERNATE DATA SOURCES Wanglin X., Nguyen K., Yoon J., Furnback W., Garrison L.1
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OBJECTIVES: Glucagon-like peptide-1 receptor agonists (GLP-1RAs), 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 and inputs closely followed the published EQW and LIRA clinical trial protocols and study design. We used ICD-10 codes to assign health outcomes and resource utilization to the model. We conducted 1000 probabilistic bootstraps to assess the model’s validity.

RESULTS: 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. LIRA had a projected incremental cost per 1% reduction in HbA1c (ICER) of $3,262 plus metformin. A sensitivity analysis on wholesale acquisition costs and published sources.

PDB71 COST-EFFECTIVENESS ANALYSIS OF HCG AND HUMAN GONADOTROPINS IN MEN WITH HYPOGONADOTROPIC HYPOGONADISM IN THE CONTEXT OF AN ASSISTED REPRODUCTION PROGRAM Chamberlin C.1
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OBJECTIVES: To evaluate the efficiency, in terms of incremental cost-effectiveness ratios (ICER), of human chorionic gonadotropin (HCG) and human gonadotropins, drugs used for male infertility due to hormonal disorder hypogonadotropic hypogonadism (HH), whose female partner has or doesn’t have infertility problems, in the consecutive goiter management cases to increase the chance of pregnancy. Gonadotropin trees were developed to assess ICER of HCG and human gonadotropins. Firstly, HCG was compared to no treatment; secondly, human gonadotropins in combination with HCG were compared to HCG used alone. Effectiveness was measured as pregnancy rates and miscarriage rates 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 20,915$/CAN per man with HH for whom the partner got pregnant. Determinant sensitivity analyses showed that the ratio is more sensitive to the probability to use IVF or ICSI. In the second comparison, treatment with human gonadotropins is cost-effective with an ICER of 25,075$/CAN per man that obtained spermatogenesis. Drug dosage is the element that is more sensitive in the univariate determinant sensitivity analyses. CONCLUSIONS: Human gonadotropins and HCG are cost-effective for the treatment of men with HH. They can be reimbursed in the drug program for this indication with some restrictions about the duration of treatment.

PDB72 HEALTH ECONOMIC EVALUATION OF CANAGLIFLOZIN IN THE TREATMENT OF TYPE 2 DIABETES MELLITUS IN SWEDEN Troedsson A.1, Knudsen MS.2, Kjellberg J.3, Schmidt A.4, Hemels M.5
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OBJECTIVES: To evaluate the cost-effectiveness of canagliflozin in dual therapy as add-on to metformin compared to sitagliptin and pioglitazone, as add on to insulin (plus metformin) and in mono therapy compared to sulfonylurea in the Swedish setting from a societal perspective. METHODS: The IMS CORE Diabetes Model was used to evaluate the cost-effectiveness of canagliflozin (using a weighted average of 80/20 for the 100 mg and 300 mg dosage respectively) versus the aforementioned comparators using Swedish-specific data, where available. Direct and indirect costs reported in 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 an average QALY gain of 0.063 and an incremental cost saving of 339 per patient. By add-on to metformin canagliflozin appears to dominate sulfonylureas with average cost savings of 600 € and an average QALY gain of 0.063. As add-on to insulin canagliflozin was associated with an incremental cost saving of 339 per patient and an average QALY of 0.063. In mono therapy canagliflozin is cost-effective compared to sulfonylureas with an incremental cost-effectiveness ratio (ICER) of 1838 € per QALY. Probabilistic analysis of the four comparisons suggests a likelihood of above 90% 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 to sitagliptin and pioglitazone in dual therapy. Adding canagliflozin to insulin will be cost-effective compared with placebo. Canagliflozin is a cost-effective alternative to sulfonylureas in mono therapy.

PDB73 ECONOMIC EVALUATION OF BLOOD GLUCOSE POINT–OF–CARE TESTING IN THE INTENSIVE CARE UNIT Steuten MG.1, Kip M.1, Hoondoenk M.2, Montebane H.3, Sprook P.4, Schultz M.5
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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 guidelines. The objectives of this study are to estimate 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 implementation study on normoglycemic control in ICUs in Sweden (NCT03237449). Costs of BG–POCT increased with 72%. When taking into account the incremental cost savings of switching to human chorionic gonadotropin (hCG) and human gonadotropins, 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 20,915$/CAN per man with HH for whom the partner got pregnant. Determinant sensitivity analyses showed that the ratio is more sensitive to the probability to use IVF or ICSI. In the second comparison, treatment with human gonadotropins is cost-effective with an ICER of 25,075$/CAN per man that obtained spermatogenesis. Drug dosage is the element that is more sensitive in the univariate determinant sensitivity analyses. CONCLUSIONS: Human gonadotropins and HCG are cost-effective for the treatment of men with HH. They can be reimbursed in the drug program for this indication with some restrictions about the duration of treatment.