glycemic control, leading to a reduced incidence of diabetes-related complications, including renal disease, cardiovascular disease, ophthalmic and diabetic foot complications. Lispro was associated with increased direct costs (EUR 56,628 versus EUR 52,450), driven by the acquisition cost of lispro. However, this was partially offset by the reduced cost of treating diabetes-related complications. Based on these estimates, lispro was associated with an incremental cost-effectiveness ratio of EUR 10,436 per QALY gained versus sitagliptin.

CONCLUSIONS: Lispro 1.8 mg was projected to improve clinical outcomes over sitagliptin as a result of reduced incidence of diabetes-related complications. Lispro 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


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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 was based on the 26-week randomized, controlled trial (DURATION-6) and a meta-analysis, compared with EQW.

RESULTS: The projected per 1% reduction in HbA1c was $565 and $3,716 based on data from DURATION-6 and meta-analysis, respectively. The projected cost per $100/20 for the 100 mg and 300 mg dosage respectively) versus the aforementioned comparators using Swedish-specific data, where available. Direct and indirect costs were projected in 2012 Euros [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 a projected 6-month cost savings of 600 € and an average QALY gain of 0.063. As add-on to insulin canagliflozin appeared to dominate pititn with an incremental cost saving of 333 € and an incremental QALY of 0.054. In mono therapy canagliflozin is cost-effective compared to sulfonylureas with an incremental cost-effectiveness ratio (ICER) of 1383 € 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 to insulin in dual therapy setting.

PDB73 ECONOMIC EVALUATION OF BLOOD GLUCOSE POINT–OF–CARE TESTING IN THE INTENSIVE CARE UNIT

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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 glucose control guidelines. The objective of this study was to compare 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 for BG–POCT with implementation of a strict glucose control guideline in the intensive care units in The Netherlands. A Markov model including health states ‘target glucose’, ‘hyperglycaemia’, ‘hypoglycaemia’, and hospital death was developed to compare expected costs, number of patients within target and number of life years saved during treatment. RESULTS: Including a reduced length of stay, as patients spend less time in hyper/hypoglycemic events and had shorter stays in ICU, the incremental cost-effectiveness (ICER) of implementing a BG–POCT with implementation of a strict glucose control guideline reduces hospital costs with €134 during total inpatient stay, as patients spend less time in hypo/hyperglycemic events and had shorter stays in ICU and hospital. CONCLUSIONS: Adding canagliflozin to insulin will be cost-effective compared with placebo. Canagliflozin is a cost-effective alternative to sulfonylureas in mono therapy.

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