LONG-TERM COST-EFFECTIVENESS ANALYSIS OF REPAGLINIDE VERSUS NATEGLINIDE IN COMBINATION WITH METFORMIN IN TYPE 2 DIABETES PATIENTS FAILING MONOTHERAPY IN THE SWEDISH SETTING

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OBJECTIVES: To estimate the long-term clinical and economic outcomes associated with repaglinide or nateglinide therapy, both in combination with metformin, in patients with type 2 diabetes inadequately controlled with sulfonylurea or metformin monotherapy, or with low dose glibenclamide plus metformin in the Swedish setting. Based on the results of a recent 16-week clinical trial. METHODS: A published and validated, interactive computer model was adapted to project life expectancy (LE), quality-adjusted life expectancy (QALE), cumulative incidence of complications and costs in the Swedish setting. The model comprises a series of Markov sub-models that simulate the long-term incidence and progression of diabetes-related complications based on published data. Baseline cohort characteristics (mean age 55.8 years, duration of diabetes 7 years, HbA1c 8.4%, BMI 33 kg.m-2) and intervention effects were derived from the clinical trial. Costs were accounted from a societal perspective (treatment, complication and lost-productivity costs) and expressed in Swedish kronor (SEK). Results: Costs were projected over a lifetime horizon and discounted at 3% per annum. RESULTS: Repaglinide + metformin was associated with an increase in LE of 0.21 years (9.82 ± 0.18 versus 9.61 ± 0.17) and in QALE of 0.17 years (6.34 ± 0.12 versus 6.17 ± 0.11) compared to nateglinide + metformin. There was a reduced cumulative incidence of diabetes-related complications associated with repaglinide + metformin treatment, most notably for retinopathy and nephropathy, compared to nateglinide + metformin. Lifetime costs were lower for repaglinide + metformin compared to nateglinide + metformin from both a third party payer (SEK 337,897 ± 11,471 versus SEK 380,867 ± 13,226) and societal perspective (SEK 629,525 ± 22,446 versus SEK 647,635 ± 21,191). CONCLUSIONS: Treatment with repaglinide + metformin was projected to be associated with increased time free of diabetes-related complications and dominant (cost and life saving) from a societal perspective, compared to nateglinide + metformin, in the Swedish setting.

THE RELATIVE COST EFFECTIVENESS OF INSULIN GLARGINE VERSUS NPH INSULIN IN THE UK IN PEOPLE WITH TYPE 2 DIABETES

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OBJECTIVES: The purpose of this study was to evaluate the relative cost effectiveness (cost utility) of insulin glargine versus NPH insulin in the UK for the treatment of people with type 2 diabetes mellitus (T2DM) using pooled data from the Phase III clinical trials programme. METHODS: This was a health economic evaluation using a stochastic simulation model. Transition probabilities for progression to diabetes-related complications for the model were derived mainly from the UKPDS (UK Prospective Diabetes Study) risk equations. Costs were derived from published estimates and local data. The maximum time horizon was 40 years to ensure effective modelling of diabetes