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 glybenclamide 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 year 2005 Swedish Kronor (SEK) values. Clinical and cost outcomes were projected over a lifetime horizon and discounted at a rate of 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 quality-adjusted life 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.
patients. Utility values were extracted from the Health Outcomes Data Repository (HODsR) and published sources. Costs were calculated from UK £2005 prices. Costs and benefits were discounted annually at 3.5%. In this case, the model reported the experiences of 1000 subjects averaged over ten repeat simulations. Relative effectiveness for glycaemic control (HbA1c) and hypoglycaemia was determined from a meta-analysis of the pivotal clinical trials. RESULTS: Pooled analysis of pre-registration studies showed no difference in HbA1c between glargine-treated patients and NPH but a 40% relative risk reduction in severe hypoglycaemic episodes, a 35% relative risk reduction in nocturnal hypoglycaemic episodes and a 10% relative risk reduction of symptomatic hypoglycaemia. Over the 40 years, treatment with NPH resulted in 37,059 additional severe hypoglycaemic events, 200,416 additional nocturnal hypoglycaemic events and 2,605,408 additional symptomatic hypoglycaemic events compared to insulin glargine. The discounted incremental cost-effectiveness ratio (ICER) was £15,197 per quality adjusted life year (QALY) gained. Sensitivity analysis showed these findings were robust. CONCLUSIONS: Insulin glargine is cost effective when used as basal insulin for the treatment of people with type 2 diabetes. The ICER is well within accepted thresholds for cost effective treatments in the UK.

PDB14

DIRECT COST FOR CONTROL OF DM IN A RURAL AREAS
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OBJECTIVE: to evaluate the cost of the treatment of the diabetic patients in our means from the perspective of the NHS and the percentage of patients treated in monotherapy and the used combinations more.

METHODS: The total of patients including in the program of diabetes in our means was of 207. 120 clinical histories by means of simple sampling studied random coming from which they went to consultation between the 1 of November of 2004 and the 31 of October of the 2005. The costs of the medical consultations and infrmary were obtained from the Sanitary District of Axarquía (Málaga Ext), the cost of the used medication of the nomenclátor of the Andalusian Health Service (SAS).

RESULTS: Sixty-seventy percent of the patients showed a good control of the HbA1c (according to criteria of ADA, 2006) with average numbers of 6.08% (IC95%: 5.95–6.21). The average total cost by patient was of €496 for a normal control (6%–7%) and €685 for bad control (HbA1c > 7%). These differences were significant (p = 0.032).

CONCLUSIONS: The percentage of control of the diabetics in our means is than acceptable more. Differences between gender in the degree of control and use of resources exist, although they were not significant statistically. The diabetics badly controlled cause a greater use of sanitary resources in primary care. Most of the diabetics in our means is controlled with monotherapy. It would be necessary to improve the sosiosanitary attention of these patients and to include the cardiovascular risk like one more a measurement of control and effectiveness.

PDB15

SELF MONITORING OF BLOOD GLUCOSE IN PATIENTS WITH TYPE 2 DIABETES: COST UTILITY ANALYSIS IN AN ITALIAN SETTING
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OBJECTIVES: Previous studies have shown that for patients with type 2 diabetes, self monitoring of blood glucose (SMBG) can improve glycemic control (with HbA1c improvements of 0.3–0.6%, depending on treatment received). This in turn, can reduce risks of disease complications. Because monitoring supplies can have high acquisition costs, country-specific evaluations of SMBG cost-effectiveness are needed. The aim of this analysis was to estimate, within an Italian setting, the cost-effectiveness of using SMBG.

METHODS: A validated, published model for type 2 diabetes (The CORE Diabetes Model) was used to project improvements in quality-adjusted life expectancy (QALE), long-term costs and cost-effectiveness of SMBG. A series of Markov models simulated the progression of diabetes-related complications (cardiovascular, neuropathy, renal and eye disease). Transition probabilities and HbA1c-dependent adjustments came from major epidemiological studies. Costs of complications were derived from published sources. From the Italian National Health Service perspective, direct costs of diabetes complications and of SMBG were projected over patient lifetimes. Outcomes were discounted at 3% annually.

RESULTS: Depending on type of treatment (diet/exercise, oral medications, or insulin), greater glycemic control with SMBG improved (discounted) QALE by 0.05 to 0.19 QALYs and increased total costs by €1270 to €3809 per patient. The resulting incremental cost-effectiveness ratios ranged from €20,047 to €25,400 per QALY gained, and were well within current willingness-to-pay limits. SMBG was most cost-effective in the sub-group of patients being treated through diet and exercise.

CONCLUSIONS: Within the three treatment regimens examined, the addition of SMBG was associated with increased glycemic control and with improved clinical and economic long-term outcomes. The incremental cost-effectiveness ratios were of magnitudes typically considered to indicate good value for money within the Italian health service setting. Additional comparative studies are needed to further assess Utilities and other standard outcomes associated with SMBG in patients with type 2 diabetes.

PDB16

SELF MONITORING OF BLOOD GLUCOSE IN PATIENTS WITH TYPE 2 DIABETES: COST UTILITY ANALYSIS IN A FRENCH GOVERNMENT PAYER SETTING
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OBJECTIVES: Previous studies have shown that for patients with type 2 diabetes, self monitoring of blood glucose (SMBG) can improve glycemic control (with HbA1c improvements of 0.3–0.6%, depending on treatment received). This in turn, can reduce risks of disease complications. Because monitoring supplies can have high acquisition costs, country-specific evaluations of SMBG cost-effectiveness are needed. The aim of this analysis was to estimate, within France, the cost-effectiveness of using SMBG.

METHODS: A validated, published model for type 2 diabetes (The CORE Diabetes Model) was used to project improvements in quality-adjusted life expectancy (QALE), long-term costs and cost-effectiveness of SMBG. A series of Markov models simulated the progression of diabetes-related complications (cardiovascular, neuropathy, renal and eye disease). Transition probabilities and HbA1c-dependent adjustments came from major epidemiological studies. Costs of complications were derived from published sources. From the French National Health Service perspective, direct costs of diabetes complications and of SMBG were projected over patient lifetimes. Outcomes were discounted at 3% annually.

RESULTS: Depending on type of treatment (diet/exercise, oral medications, or insulin), greater glycemic control with SMBG improved (discounted) QALE by 0.05 to 0.19 QALYs and increased total costs by €1270 to €3809 per patient. The resulting incremental cost-effectiveness ratios ranged from €20,047 to €25,400 per QALY gained, and were well within current willingness-to-pay limits. SMBG was most cost-effective in the sub-group of patients being treated through diet and exercise.

CONCLUSIONS: Within the three treatment regimens examined, the addition of SMBG was associated with increased glycemic control and with improved clinical and economic long-term outcomes. The incremental cost-effectiveness ratios were of magnitudes typically considered to indicate good value for money within the French health service setting. Additional comparative studies are needed to further assess Utilities and other standard outcomes associated with SMBG in patients with type 2 diabetes.