

complications was assessed for the last six months. **RESULTS:** CODIP patients totaling 79.3% had at least one complication, 21.7% having microvascular only, 17.5% macrovascular only, 40% having both microvascular and macrovascular complications. The prevalence of microvascular complications: foot ulcer 6.9% (amputations performed in 2.6%), 1-eye retinopathy 7.3%, both-eyes 17.2%, photocoagulation 9.9%, vitrectomy 1.7%, microalbuminuria 19.1%, manifested nephropathy 11.9%, dialysis 0.3%, neuropathy 41.9%. The prevalence of macrovascular complications: coronary artery disease 42.6% (unstable angina 4.9%), myocardial infarction 14.2%, heart failure 15.5%, PTCA 2.3%, CABG 3.0%, TIA 5.0%, PAD 30.7%. Mean cost, in 6 months observations, for patients with no complications amounted to €498 (PPP value: €1 = 1.9 PLN). Cost impact factor for microvascular only, macrovascular only and microvascular and macrovascular, as compared to patients with no complications were estimated at 1.54, 1.52, and 2.02, respectively. **CONCLUSIONS:** Complications have a substantial impact on direct cost of diabetes type 2.

PDB19

ADVANCED TOOLS FOR ALLOCATION OF MEDICAL PRODUCTS: ECONOMIC EVALUATION OF THE “HOMECARE” PROGRAMME

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OBJECTIVES: In 2000 an electronic prescription service called “Homecare” was established in the Local Health Unit (LHU; 920.196 inhabitants) of Legnano (Italy) in order to manage the distribution of devices for diabetes care directly through private pharmacies. The objective was to evaluate if the allocation of the medical products through “Homecare-Legnano” resulted in savings to the LHU. **METHODS:** We created an “Index of Saving” (IS), calculated as the ratio between the difference from actual and budgeted and budgeted: $IS = [(actual - budgeted) / budgeted]$, in which “budgeted” is the number of devices that each patient can theoretically receive every month and “actual” is the number of devices that each patient actually received. The IS value ranged from +1 to 0 and can be interpreted as the percentage saving obtained in the allocation of medical products for the LHU system. We performed an economic evaluation of the savings, in monetary terms for medical products, paid out through “Homecare” for the period January to December 2001. To verify if the savings, both in physical (IS) terms and in monetary terms were significantly different from 0, we conducted a statistical analysis using a “Student t” test. **RESULTS:** More than 17,000 patients used the Homecare service through the 197 private pharmacies, which

were involved in the project. Twenty different types of medical products were distributed for a total of 2,668,582 devices. The mean value of IS for medical products per month was -0.134 , i.e. a saving in the allocation of medical products of 13.4%. This value was significantly different from 0 (CI 95% -0.1585 ; -0.1101 $P < 0.0001$) corresponding to a monetary saving of €29.74 per patient-year. **CONCLUSIONS:** The “Homecare Legnano” programme simplified the procedures for allocation of diabetic medical products and simultaneously resulted in savings in monetary terms for the LHU.

PDB21

A COST-UTILITY ANALYSIS OF INSULIN GLARGINE (LANTUS®) IN THE TREATMENT OF PATIENTS WITH TYPE 1 DIABETES

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OBJECTIVES: To estimate the cost per quality adjusted life year (QALY) with insulin glargine (LANTUS) compared with NPH insulin in the treatment of patients with Type 1 diabetes in Norway. An impediment to adequate management of patients with Type 1 diabetes has been maintaining an appropriate balance between adequate glycaemic control and the risk of hypoglycaemia, which may have a serious impact on quality of life. The rationale behind insulin glargine therapy is to facilitate this trade-off by improving the probability of reaching glycaemic control targets, reducing frequency of hypoglycaemia (FoH), or both. **METHODS:** The model (developed by Aventis Pharma) estimates the cost-utility of insulin glargine versus NPH insulin over 9 years in Norway. The yearly frequency of microvascular complications for NPH insulin treatment is based on data from the DCCT. For insulin glargine, the effects on HbA1c observed in clinical trials are used to estimate complication rates based on the relationship observed in the DCCT. Estimates of QALYs lost are based on complication rates and frequencies of serious hypoglycaemic events, and the impact on QALYs due to fear of hypoglycaemia (proportional to the frequency of events) is also modelled. The cost perspective is societal, and Norwegian costs of treatments and complications are utilized. **RESULTS:** Under base-case assumptions ($\Delta HbA1c = 0.4\%$, $\Delta FoH = 15$ events/patient—year, discount-rate 3%) the marginal cost/QALY is NOK 3700. Sensitivity analyses based on the central parameters indicate the analysis is stable. Even under conservative assumptions ($\Delta HbA1c = 0.2\%$ and a 60% reduction in the impact of fear of hypoglycaemia) the incremental cost/QALY remains acceptable at $< NOK 23,000$. **CONCLUSIONS:** Based on the assumptions in this model, the results indicate that insulin glargine is a cost-effective alternative to NPH insulin in patients with Type 1 diabetes.