CONCLUSIONS: Treating hypertensive type 2 diabetes patients with nephropathy using irbesartan was both cost- and life-saving compared to amlodipine or antihypertensive therapy alone.

DIABETES—Clinical Outcomes

LONG-TERM CONSEQUENCES FOR THE TREATMENT OF HYPERTENSIVE DIABETES TYPE 2 PATIENTS WITH A FIXED COMBINATION OF AN ACE-INHIBITOR AND NON-DIHYDROPYRIDINE-Calcium-Channel-Blocker in Comparison to other COMBINATION THERAPIES

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OBJECTIVE: Comparing a fixed combination of an ACE-inhibitor and a Non-Dihydropyridine-Calcium-Channel-Blocker (trandolapril/verapamil) with other medications in the treatment of hypertensive type-2 diabetics to determine medical consequences of a beneficial metabolic effect as judged by HbA1c value. METHODS: A computer model was developed in order to assess long-term effects of various levels of HbA1c on diabetes-related complications for hypertensive patients with diabetes type-2, who were treated with fixed antihypertensive combinations. Data from 2 clinical studies were extrapolated to 10 years. The expected event rate was calculated per treatment group, based on UKPDS data. Complications included in the model: renal failure, photocoagulation, vitreous hemorrhage, blindness, cataract extraction, amputation, myocardial infarction, angina,
heart failure, and non-fatal stroke. RESULTS: The ACE/CCB-combination showed a beneficial effect on HbA1c values, and the resulting event rate in this group is lower than for patients treated with fixed combinations like atenolol/chlorthalidone or enalapril/hydrochlorothiazide. Extrapolating data from one study, the relative risk was lowered by 20% for most diabetes-related events in comparison to atenolol/chlorthalidone. “Cataract extraction” and “renal failure” were reduced by 19%, “blindness” by 30%. The risk reduction for CVD amounted 13% for non-fatal myocardial infarction, 12% for non-fatal stroke. In the second study, the relative risk for “Cataract extraction” is reduced by 16% in the ACE/CCB-group after 10 years, compared to the patient group treated with a combination enalapril/hydrochlorothiazide. The risk reduction for CVD amounted 17% for non-fatal myocardial infarction and 16% for non-fatal stroke. CONCLUSION: The use of this computerized model allows gaining insight into the long-term medical outcomes of the treatment with ACE/CCB-combination in hypertensive type-2 diabetics. The model shows a beneficial effect for the combination trandolapril/verapamil in diabetic patients because of the additional HbA1c decreasing effect beside the hypertension management.

RETROSPECTIVE STUDY EVALUATING CLINICAL AND ECONOMIC OUTCOMES OF MONOTHERAPY VERSUS DUAL THERAPY IN DIABETIC PATIENTS IN A COUNTY HEALTH CARE SYSTEM

OBJECTIVE: The primary objective is to evaluate the clinical and economic outcomes of monotherapy with a sulfonylurea versus dual therapy with metformin and a sulfonylurea in a county health care system. METHODS: This is a retrospective, chart-review, study in which the patients will serve as their own controls, prior to starting dual therapy. All patients are evaluated two years prior to and post the addition of the second agent, metformin. Data collected will include the following: HbA1C, fasting blood glucose, lipid profile, and liver and renal function tests, adverse drug reactions, number of hospital and emergency room admissions, number and type of clinic visits, and number of operations/procedures/and diagnostic tests. The t-test for paired data is utilized to analyze the continuous variables. RESULTS: A total of 124 patients enrolled in this study; with a mean duration of diabetes of 6.68 years (SD 4.62). The average HbA1c on monotherapy is 10.5% versus 10.2% on dual therapy (NS). The average fasting blood glucose is 229 mg/dL on monotherapy versus 192 mg/dL on dual therapy (p < 0.05). For the economic outcomes on monotherapy there is an average of 1.31 visits per patient versus 1.43 visits on dual therapy to the emergency room, hospital, and to ambulatory care clinics. On monotherapy, 31% of the patients had procedures and 37% had diagnostic tests, compared to 38% and 51% respectively, on dual therapy. CONCLUSIONS: This study does point to better clinical outcomes with dual therapy; however, there is a concurrent rise in the resource utilization. This increase could be due to more education on the physician side for preventive practices and to an increase in the patient access within the system. More research, especially prospectively designed studies, need to be conducted to determine the exact clinical and economic impact of dual oral therapy for diabetes.

THE WHO/IDF CARECARD DIABETES AS AN INTERNET-BASED APPROACH FOR QUALITY ASSURANCE IN SWITZERLAND

OBJECTIVE: Implementing an internet-based managed care model for diabetes care in Switzerland. METHODS: The CareCard Diabetes is a national standard for diabetes care in Switzerland. In a joint approach the largest Swiss health insurance and an urban general practitioners’ association have launched a joint quality assurance initiative for diabetes care in Luzern. An Internet quality assurance database is used to connect the physicians. Data from the CareCard were supplemented with specific anamnestic data and information regarding diabetes medication in order to allow for cost-effectiveness and risk analyses. The data are presented to the physician in several ways. Most important is a weighted problem list as a feedback to the GP, which gives advice on how to improve the diabetes care for each patient. The diabetic has access to the online CareCard Diabetes and via web-interface or call-center, and the entry of self-control data is possible. The physician in return has access to the self-control data of the patient and can derive information for the optimisation of the therapy. Quality campaigns help to facilitate the use of the system and to promote widely accepted guideline knowledge into routine diabetes care. A proof-of-concept study in Luzern has started in June 2001, with currently 176 patients being enrolled. RESULTS: HbA1c values decreased in type 2 diabetes patients from 7.3% to 6.9% (p < 0.05). Men initially had worse HbA1c levels and showed greater improvements −0.5% than women did −0.2% (p < 0.05). Results from an additional HbA1c quality assurance campaign found a relevant deviation of practice measured HbA1c levels (mean 6.9 % +/- 1.4%) in comparison to reference laboratory measurements (mean 7.3 % +/- 1.4%). The study will end in June 2003.