patients aged 65 years or older with DM (ICD-9-CM code = 250.xx) were identified. The personal information on socio-demographic characteristics, self-perceived health status, co-existing medical conditions and other measures were from the MCBS survey. The use of emergency department (ED) was measured by number of ED visits. A multivariate count regression model was used in the analysis. RESULTS: Of 1646 patients, 57% were female; 81% were white; and 57% were current smokers. The average number of ED visits was 74 per 100 patients (SD = ±14.5). There were 35 percents of these patients who had at least 1 emergency department visit. The results from the multivariate regression model show that predictors of ED visits were current smoker, poor in self-perceived health status, with 3 or more difficulties in activity of daily living, having cardiovascular diseases. Gender, race, education, living arrangement, Medicaid insurance status, and residence were not significant factors to predict ED visits while controlling other factors. CONCLUSIONS: This study shows that smoking cessation and improving management in co-existing cardiovascular diseases in older patients with diabetes may reduce preventable ED visits.

COST-EFFECTIVENESS ANALYSIS OF THE ACARBOSE PHARMACOLOGICAL TREATMENT AS A PREVENTIVE MEASURE OF THE DEVELOPMENT OF TYPE 2 DIABETES IN SUBJECTS DIAGNOSED OF IMPAIRED GLUCOSE TOLERANCE (IGT)

Sabés R
Universitat Pompeu Fabra, Barcelona, Barcelona, Spain

OBJECTIVES: To obtain the incremental cost for avoiding a transition from a diagnosed IGT to diabetes through a treatment based in the use of the Acarbose drug compared to the normal practice. METHODS: Modelisation of the health and economic consequences (direct costs for the health system), in a period of 40 months, of implementing Acarbose or a non-drug treatment to a population of 1000 subjects diagnosed of IGT. The efficacy, adverse events, and the follow up of the pharmacological treatment data were obtained from a controlled clinical trial: STOP-NIDDM. The resources’ cost data were obtained from published studies focused on the Spanish Health System. The differential resources’ use of both treatments (visits, tests, etc.) was actually discussed with an expert in diabetes. RESULTS: The incremental cost of avoiding the transition to type 2 DM from a IGT state with the pharmacological treatment based on the use of Acarbose is about €3386, and the incremental cost per year of diabetes avoided is about €1736. Additionally the evaluated treatment has significant results reducing cardiovascular events. CONCLUSION: In order to evaluate all the positive effects of the treatment, a longer-term cost-benefit analysis and a comparison of the pharmacological treatment of Acarbose with other 2 DM prevention alternatives (basically the ones related to the life style) would be needed.

RISK OF CONGESTIVE HEART FAILURE IN TYPE 2 DIABETICS EXPOSED TO PI OG LITAZONE VS INSULIN: A MATCHED COHORT ANALYSIS

Rajagopalan R1, Rosenson RS2, Murray FT1
1Takeda Pharmaceuticals North America, Inc, Lincolnshire, IL, USA; 2Northwestern University, Feinberg School of Medicine, Chicago, IL, USA

OBJECTIVE: To compare the association of congestive heart failure (CHF) risk between pioglitazone use and insulin use in type 2 diabetes patients. METHODS: Adults with type 2 diabetes who initiated pioglitazone or insulin (INS) treatment between January 1999 and December 2001 were identified and an “index date” assigned based on the first antidiabetic drug prescription. The sample was restricted to those continuously enrolled at least 12 months before and at least 3 months after therapy initiation. Patients with CHF diagnosis or digoxin use in the preindex period, troglitazone use during preindex or follow up, or any oral antidiabetic use other than metformin or a sulfonylurea (final 6 months of preindex only) was excluded. INS patients were matched (1:1) to pioglitazone patients based on a difference of no more than ±0.01 in the estimated propensity score for pioglitazone therapy; propensity was modeled using logistic regression; controlling for demographics, comorbidities, preindex utilization costs; and postindex treatment duration. CHF risk (based on ≥1 diagnoses during follow up) was examined using Cox proportional hazards models. Further, risk of inpatient hospitalization for CHF also was explored. RESULTS: A total of 1668 matched pairs were identified for pioglitazone vs. insulin comparison. Mean patient age was 51 years; 51% were male. Crude CHF incidence was higher in the INS group (4.0% vs. 2.0% for INS group at 2 years, p = 0.001). In Cox proportional hazards models controlling for age and preindex total Health care costs, 2-year CHF risk was significantly lower for the pioglitazone group (HR = 0.501, 95% CI = 0.331, 0.758; p = 0.001) than for the INS group; findings were similar for inpatient hospitalization for CHF (HR = 0.263, 95% CI = 0.135, 0.511; p = 0.0001). Differences were similar when pioglitazone monotherapy was compared with insulin. CONCLUSION: Pioglitazone use appears to be associated with lower CHF risk versus INS use in type 2 diabetes patients.