OBJECTIVES: To measure healthcare costs for patients receiving repaglinide, metformin, repaglinide/metformin, and glyburide/metformin within a managed care organization (MCO). METHODS: Using retrospective pharmacy and medical claims from a MCO, adult patients with type 2 diabetes identified during CY2000 were stratified into the following cohorts based on their medication regimen at identification date: repaglinide only (n = 500), metformin only (n = 26,535), repaglinide/metformin (n = 172), glyburide/metformin (n = 17,160). Pharmacy, medical, and total (pharmacy + medical) healthcare costs were measured for each cohort over a 9-month period. Costs were adjusted for age, gender, and comorbidities using Analysis of Covariance. RESULTS: Adjusted pharmacy costs were lowest for patients receiving metformin only ($1182; 95% CI $1172–$1191), followed by metformin/glyburide ($1339; 95% CI $1327–$1351), repaglinide ($1518; 95% CI $1447–$1588), and repaglinide/metformin ($1936; 95% CI $1816–$2056). Differences between the cohorts in adjusted medical and total healthcare costs were not statistically significant. Adjusted medical charges were $6988 for repaglinide/metformin, $8236 for metformin/glyburide, $8267 for metformin only, and $10,392 for repaglinide only. Total adjusted healthcare costs were lowest for repaglinide/metformin ($8924), followed by metformin only ($9448), metformin/glyburide ($9376), and repaglinide only ($11,910). CONCLUSIONS: Although not statistically significant, repaglinide/metformin yielded lower total healthcare costs than metformin alone, metformin/glyburide, or repaglinide alone. While these results need to be confirmed using larger patient populations, they imply that differences in pharmacy costs of repaglinide/metformin therapy are offset by measurable medical cost savings.

THE DIRECT COST OF DIABETES TYPE 2 IN POLAND—PRELIMINARY DATA FROM CODIP STUDY

Kinańska IT1, Niewada MP2, Głogowski CA1, Krzyzanowska AM1, Pietrasik A1, Latek M2, Kamiński B1, Gierczynski JM3, Tomaszewski WV4
1Medical University of Białystok, Poland, Białystok, Poland; 2Medical University of Warsaw, Warsaw, Poland; 3GlaxoSmithKline Pharmaceuticals S.A., Warsaw, Poland; 4Warsaw School of Economics, Warsaw, Poland

OBJECTIVES: Limited data are available on treatment cost of diabetes Type 2 patients in Poland. The Cost Of Diabetes Type 2 In Poland (CODIP) is a multicenter, bottom-up designed, retrospective study aimed at evaluation of total cost of diabetes type 2 in Poland. Preliminary data on direct cost are presented. METHODS: Patients diagnosed with type 2 diabetes mellitus were randomly selected from outpatients’ charts databases and surveyed with CODE-2 trial questionnaires adjusted to Polish setting. Both patient and practitioner questionnaires collected data from each patient on: clinical characteristic, medical and other resources used, quality of life. Total treatment costs were calculated using drug retail and medical procedures prices. Values are expressed in USD value (PPP2001 1 PLN = 1.98). RESULTS: 303 patients from 24 centers were included. Mean age 61.0 (95% CI: 59.8; 62.2); time from diagnosis 10.9 (10.0; 11.7); 74.6% patients presented comorbidities with coronary arteries disease as most prevalent (20.5%). The total annual treatment costs amounted to 4390 PLN (2127 USD). The cost structure: 13.7% physicians consultations, 2.2% paramedics, 25.6% diabetic drug costs (insulin 62.8%, oral hypoglycemic agents and glucagon 37.2%), hospital costs 35.7%, emergency service 0.6%. CONCLUSIONS: Economic impact of diabetes Type 2 in Poland is considerable. Insulin prescription patterns are responsible for large part of drug costs.
FACTORS INFLUENCING THE DIAGNOSTIC TESTS PRESCRIBING FOR TYPE 2 DIABETES IN AMBULATORY PATIENTS

Rahman AM
St. John’s University, Jamaica, NY, USA

OBJECTIVES: Type 2 Diabetes is associated with severe complications such as heart disease, stroke, high blood pressure, kidney disease etc. Approximately 17 million people suffer from diabetes accounting to 6.2% of the population in the United States. According to the American Diabetes Association, the total cost of diabetes to the society is 98 billion dollars. Type 2 diabetes accounts for about 90–95% of all the diagnosed cases of diabetes. This study examines the various physician and patient factors, which influence the diagnostic test prescribing for diabetes in ambulatory patients. METHODS: Patient factors such as age, sex, race, geographical location and payment source and Physician factors such as specialty, geographic location and referral status were used to determine their influence on the number of diagnostic tests prescribed. Data from the National Ambulatory Medical Care Survey (NAMCS) 2000 were utilized. Patients with principal diagnosis of type 2 diabetes (ICD-9-CM code 250.00) were analyzed using multiple linear and binomial logit regression models. RESULTS: The numbers of diagnostic tests performed were independent of patients’ age, sex and geographic region ($R_2 = 0.117$). Blacks and Hispanic patients were prescribed more diagnostic tests compared to other races ($R_2 = 0.346$). Patients with Federal source of payments (Medicaid and Medicare) were prescribed more diagnostic tests than other patients ($R_2 = 0.245$). Numbers of diagnostic tests were not influenced by whether the patient was referred ($R_2 = 0.037$). Various physician specialties also had no influence on the number of diagnostic tests prescribed ($R_2 = 0.054$). CONCLUSIONS: The numbers of diagnostic tests prescribed are significantly influenced by patients’ race and source of payments. Diagnostic tests constitute a significant portion of the cost of diabetes therapy. Further research, reviewing the causes of the significant differences seen in this study would help control/reduce the cost of diabetes therapy.

PDB25

COST ANALYSIS OF DIABETES TREATMENT WITH GLARGINE INSULIN OR NPH INSULIN IN SPAIN

Rubio-Terrés C1, Rodríguez J1, Bolinder B2
1Aventis Pharma, S.A, Madrid, Spain; 2Aventis Pharmaceuticals, Bridgewater, NJ, USA

OBJECTIVES: A pharmacoeconomic analysis was carried out comparing a long-acting analog of human insulin, insulin glargine (once-daily injection), and NPH human insulin (twice-daily injections) in patients with Type 1 (DM1) and Type 2 (DM2) diabetes mellitus in Spain. METHODS: Retrospective analysis using a cost-offset model, from the perspective of the National Health System in Spain. The following short term (1 year) health costs of diabetes mellitus were used in the model: glargine or NPH insulin treatment, use of lispro insulin, nurse home visits, severe hypoglycemia episodes, test strips for glucose control and disposable needles. The utilisation of resources was estimated from two clinical trials comparing insulin glargine (Lantus) and NPH human insulin in patients with DM1 and DM2 and from Spanish sources, and the unit costs from a Spanish health costs database. RESULTS: The use of glargine insulin instead of NPH insulin would result in an annual saving of 234.75 and 89.47 for a patient with DM1 and DM2, respectively. Although the acquisition cost of glargine insulin is higher, yearly savings can be achieved compared to NPH insulin in the remaining costs analysed especially in the use of less test strips (€198.85 in DM1 and DM2), less costs in nurse home visits (€83.22 in DM1 and DM2), lower doses of lispro insulin (€49.78 in DM1), lower incidence of severe hypoglycemia (€6.91 and €1.33 in DM1 and DM2) and lower costs in insulin needles (5.02 euros in DM1 and DM2). CONCLUSIONS: A comprehensive analysis of the costs associated with insulin treatment shows that switching to once-daily insulin glargine from NPH insulin reduces Health System costs for treating Type 1 and Type 2 diabetic patients in Spain.

DIABETES—Quality of Life/Preference Based Outcomes

PDB26

EVALUATION OF QUALITY OF LIFE IN PATIENTS WITH NEUROPATHY USING THE NORFOLK QUALITY OF LIFE (QOL) TOOL

Vinik EJ, Stansberry KB, Ruck SM, Vinik AI
EVMS, NORFOLK, VA, USA

OBJECTIVE: Our objective was to examine the scores and reproducibility of a 47 item Quality Of Life ques-