Abstracts

**PDB5**

**A COST-MINIMIZATION STUDY TO DETERMINE THE IMPACT OF ADDING GLUCOVANCE TO A COUNTY HOSPITAL FORMULARY**

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**OBJECTIVE:** This study is conducted to determine the economic impact of the addition of a new diabetic agent, Glucovance (metformin/glyburide) to a county hospital system with over 21,000 diabetic patients. **METHODS:** A cost minimization analysis between Glucovance and metformin plus any of the sulfonylureas is conducted. Initially, a database of all diabetic patients in the county hospital system is created to determine total number of patients who are being treated with metformin alone and in combination with other sulfonylureas, glipizide XL, generic glipizide, glyburide, and glimepiride. Next, the cost difference between treating with Glucovance alone or as a dual therapy with metformin 500mg plus the most common dose of each sulfonylurea is calculated to determine the incremental cost savings over a year’s time of therapy. Only the direct costs of the drugs involved are utilized in this study. **RESULTS:** The results indicate that if all of the 6,622 patients who are on dual therapy with both metformin 500mg and a usual maintenance dose of a sulfonylurea drug are switched to the new combination product, the county system can save over half a million dollars ($555,566.00) in a year, in direct drug costs alone. **CONCLUSION:** These results illustrate that there is an economic incentive to add the new combination product to the formulary. However, future cost-effectiveness studies are needed to determine the impact of this decision both in terms of clinical and economic outcomes.

**PDB6**

**AN EARLY LOOK AT TZD USE AMONG TYPE 2 DIABETES PATIENTS**

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**OBJECTIVE:** One of the newest drug classes used in the treatment of type-2 diabetes is the thiazolidinediones (TZDs). TZDs enhance insulin action in insulin-dependent tissues without stimulating insulin secretion. These drugs are used both as monotherapy and in combination with other anti-diabetic pharmacotherapies. Two TZDs are currently on the market, rosiglitazone and pioglitazone. Both of these compounds were approved in the US mid-year 1999. This study examines the patient characteristics, drug use, and resource utilization of individuals treated with a TZD in the first year following approval. **METHODS:** Patients who received at least one prescription for rosiglitazone or pioglitazone were selected from over 2.3 million employees, retirees, and dependents in the MarketScan® databases. Health plan enrollment data, medical claims, and pharmacy claims were used to construct the final sample. Descriptive information is presented on patient demographics, inpatient, outpatient and prescription drug use. Comparisons between these variables across the different therapy groups (e.g., monotherapy versus combination therapy) were made using appropriate statistical tests. **RESULTS:** 18,801 patients received at least one prescription for rosiglitazone or pioglitazone during the study period. Mean age is 60.0 years (SD = 11.6 years), including 6,510 who were 65 or older. The sample is almost evenly split between males and females (52.3% and 47.7%, respectively). 54.9% (10,324) of the patients had at least three months follow-up available. Of these, 6.3% (655) were hospitalized within three months of TZD initiation. Patients filled other types of diabetes medications after initiating therapy with a TZD—28.8% (n = 5,417) insulin, 52.0% (n = 9,776) sulfonylureas, 39.8% (n = 7,475) metformin, and 7.1% (n = 1,340) other types of diabetes drugs. **CONCLUSIONS:** Additional TZD-type compounds are being developed. This study provides an early look at the characteristics and subsequent outcomes of patients who are being prescribed this important new type of therapy for diabetes.

**PDB7**

**COSTS AND EFFECTIVENESS OF INTENSIVE INSULIN THERAPY FOR TYPE 2 DIABETES**

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**OBJECTIVE:** To estimate the lifetime benefits and costs of intensive insulin therapy for type 2 diabetes mellitus (2DM), cost-effectiveness analysis was carried out. **METHODS:** Cost-effectiveness analysis (CEA) and cost-utility analysis (CUA) were carried out to estimate the lifetime benefits and costs of intensive insulin therapy (IIT) for 2DM. A Markov model base on a randomized controlled trial (Kumamoto Study) was developed. As a comparator, conventional therapy (CV) was used. A societal viewpoint was adopted for the estimation of costs, and both direct and indirect costs were evaluated. A Monte Carlo simulation was done to evaluate a confidence interval of cost-effective or cost-utility ratio. Quality of life (utility) was measured by a time-trade off method among 2DM patients. **RESULTS:** At lifetime follow-up among 40 years of men, expected life years (28.7 years) for IIT were longer than those (26.5 years) for CT. On the other hand, expected costs ($106,500) for ITT were higher than those ($95,600). The incremental cost per life-year gained for IIT was $3,020 (discount rate of cost and effectiveness: 5%). The incremental cost per QALY gained was $3,270. Sensitivity analysis for age, costs, and health outcomes confirmed robustness of these results. **CONCLUSION:** Over lifetime, IIT for 2DM not only reduces complications, but also improves QOL and increases length of life. From a societal perspective, efficiency of IIT is considerably high.