ICD-9 diabetes diagnosis (250.00 to 250.79) occurred within one year of the patient’s transplant. We then used a Kaplan-Meier-style non-parametric calculation to estimate the average accumulated costs for patients with and without NODM. RESULTS: Among the 4,515 transplant recipients studied, 621 (13.7%) reported diabetes diagnoses within the first year post-transplant. By the end of the first post-transplant year, Medicare had paid $35,288 for each non-diabetic recipient and an extra $17,614 (P = 0.001) for each of the NODM recipients. By two years post-transplant, Medicare had paid an average $46,869 for each of the non-diabetic recipients and an extra $26,032 for each of the NODM recipients (P = 0.001). CONCLUSIONS: Our 13.7% NODM exceeds the 2% to 5% previously reported, and the extra $26,032 is 55.5% above what Medicare paid for recipients without NODM. New immunosuppressives unassociated with NODM may generate substantial savings worldwide.

**PDB12**

A PHARMACOECONOMIC ANALYSIS OF WEIGHT-REDUCTION THERAPY IN A HYPOTHETICAL COHORT OF OBESE CHINESE PATIENTS WITH IMPAIRED GLUCOSE TOLERANCE

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OBJECTIVES: To conduct a pharmacoeconomic analysis to estimate the potential cost avoidance due to reduced rate of incidence of diabetes after weight-reduction therapy in obese Chinese patients with impaired glucose tolerance (IGT). METHODS: The incidence of IGT-to-diabetes mellitus (DM) conversion of two hypothetical cohorts of obese Chinese patients with IGT, either managed with diet control (n = 100) or diet control plus orlistat (n = 100), were projected over a two-year period. The probabilities of IGT-to-DM progression in the orlistat plus diet group and the diet only group were estimated from a published study in a non-Chinese and a westernized Chinese population, respectively. Direct medical costs of management of type 2 diabetes were estimated from a public budget perspective. RESULTS: The estimated rates of IGT-to-DM conversion were 1.9% for the orlistat plus diet group and 8% for the diet only group. The total costs of DM management at the end of the first and second years were estimated to be HK$8,187 and HK$23,390 (HK$ 7.8 = $US 1) for the orlistat group. In the diet only group, the costs of DM management were HK$34,469 in year one and HK$100,123 in year two. The cost avoidance associated with orlistat therapy were calculated to be HK$26,282 and HK$75,092 per 100 patients at the end of the first and second years, respectively. CONCLUSIONS: Results of the present study suggest positive economic impacts of weight-reduction therapy in a hypothetical Chinese population with IGT in the prevention of type 2 diabetes.

**PDB13**

OPTIMIZATION OF DIABETES MANAGEMENT IN GERMANY USING A COMPUTER BASED OUTCOME PROGNOSIS MODEL

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OBJECTIVES: Optimization of type 2 diabetes intervention strategies in Germany based on stepwise prognoses
of expected medical and economic outcomes in population subgroups. METHODS: A published, editable diabetes model was used to assess the outcomes of different degrees of secondary prevention measures for different diabetes type 2 patient sub-groups in Germany. Clinical data were derived from German diabetes quality of care circles. Incremental cost-effectiveness ratios (ICERs) were calculated as the differences of average lifetime cost divided by the difference of average life expectancy. Optimization was approximated by calculating ICERs for stepwise modified prevention strategies, including screening and complication treatments for variable population risk characteristics. RESULTS: Compared to the prognosis of overall life expectancy and cost consequences the more refined stepwise approach generates a series of results for all combinations of intervention strategy and population subgroup. At certain risk levels the ICER based treatment recommendation may change if subgroup prognosis is applied. But for all age groups of diabetes patients secondary prevention of complication is the dominant variant. Medical outcomes and incremental cost-effectiveness are improved by additional secondary prevention measures except for patients with non-reversible risks. The potential savings from improved prevention amount to 10% of total expenditures for diabetes care in Germany, i.e., DEM 3000 million. CONCLUSIONS: With the stepwise assessment of subgroup outcomes a treatment optimization and optimal allocation of diabetes management to patient subgroups is feasible. Using average data to calculate overall ICER for the total diabetes population may ignore the best treatment strategy in different population subgroups. Subgroup analysis represents a helpful tool in the health economic evaluation of diabetes treatment strategies when variable population risk characteristics and baseline complications affect the clinical and economic outcome.

PDB14

IMPACT OF A DIABETES DISEASE MANAGEMENT PROGRAM: A RETROSPECTIVE CLAIMS-BASED EVALUATION

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OBJECTIVE: Evaluate the impact of a comprehensive diabetes disease management (DM) program on health care costs, quality of life and patient satisfaction. METHODS: Diabetes patients targeted by pharmacy claims were invited to enroll in a voluntary payor-sponsored DM program (n = 2,178). Eligible non-enrollees were used for the control group (n = 6,396). Medical and pharmacy claims were combined to determine health care costs. Quality of life and patient satisfaction were also assessed, via patient interview. The analysis timeframe encompassed two years prior and one year following program initiation. RESULTS: Enrollees had higher direct health care costs than non-enrollees. We were able to predict accurately the medical spend in our control group in absence of intervention with standard time series analysis within 4%. Following DM intervention, enrollees' health care spend was lower than their baseline spend and lower than their projected spend ($116, -$1,056). Conversely, health care spend increased in the non-enrollee group from baseline (+$714) (Table 1). Additionally, enrollee quality of life measures improved from baseline and patient satisfaction with the DM program was high. CONCLUSIONS: A comprehensive diabetes DM program can lower health care cost and improve patient reported quality of life while demonstrating consistently high patient satisfaction.

PDB15

DOES PATIENT EXPERIENCE MATTER? TYPE II DIABETES PATIENTS’ STATED PREFERENCES FOR INSULIN THERAPIES

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OBJECTIVES: Patient preferences for alternative treatments may be affected by health status and experience with the treatment. Randomized Clinical Trials (RCTs) offer a unique opportunity to collect preference data while controlling for patient experience. METHODS: Patients with Type II diabetes in a large US RCT answered a series of stated preference (conjoint format) questions regarding attributes of alternative insulin therapies. All patients are insulin-naive and take insulin as part of the trial. Preference data is collected before the patient begins insulin, after 3 months, and after 6 months of insulin therapy. Insulin attributes include the frequency of insulin injections, method of injection (syringe or pen), glucose control and frequency of hypoglycemia. Personal health data such as glucose control are collected at each administration of the stated preference survey. RESULTS: Preferences are analyzed in an ordered probit panel model that controls for individual health status. Insulin administration attributes have the largest importance scores. The importance score of the insulin injection frequency attribute decreases during the later observation points. While few patients experience nighttime hypoglycemia, this attribute is significant and has a larger importance score than glucose control. CONCLUSIONS: Patient experience significantly affects patient preferences and the derived pharmacoeconomic measures and should be controlled in preference experiments. Results suggest that some insulin-naive patients are more averse to insulin injections before they begin insulin therapy. Results also suggest that increased experience with diabetes control measures during the trial affects treatment preferences.