

becomes the dominant strategy after 2.5 years due to its lower long-term cost of care. The average cumulative one and five-year costs are \$10,855 and \$12,866 for ablation compared to \$5163 and \$24,377 for cardioversion and drug therapy. Over a 5-year time horizon, the cumulative QALY gain with catheter ablation is 0.64 at a cost-savings of greater than \$11,500. **CONCLUSION:** For first-line treatment of typical isthmus-dependent AFL, catheter ablation is more effective and less costly than cardioversion and drug therapy.

Diabetes/Obesity I

DB1

ESTIMATION OF THE FINANCIAL IMPACT OF OBESITY ON THE NATIONAL HEALTH SERVICE AND SOCIETY IN THE UNITED KINGDOM

Woehl A¹, Currie CJ²

¹Kiel University, Kiel, Germany; ²Cardiff University, Cardiff, UK

OBJECTIVES: The objective of this study was to estimate the existing financial costs from obesity in the United Kingdom (UK). **METHODS:** This comprehensive study was undertaken using a number of data sources that included a measure of height and weight. Population data were taken from published UK governmental sources. NHS hospital utilisation data from a region, in addition to corresponding specialized survey data (Health outcomes data repository [HODaR]). Cost data were taken from statistical governmental series and published sources (HRGs). Estimates of financial cost—including direct, indirect and intangible costs—were available from HODaR. All costs for all disease categories were calculated for different groups defined by age, sex and body mass index (BMI). Resulting values in alternative categories were compared using the Mann-Whitney U test, comparing overweight and obese patients with 'normal' groups. **RESULTS:** The test indicated a significant difference to the normal group, the amount of additional costs was calculated and termed excess costs. Prices are in UK£, 2002. Unusually, this considered all diseases including those where obesity provides a protective affect e.g., osteoporosis. **CONCLUSIONS:** These results confirm the current heavy financial toll of obesity in the UK. Obesity is already a major health problem in the UK and if recent trends of increasing BMI continue it will intensify.

DB2

ECONOMIC CONSEQUENCES OF CHOICE OF DIABETES THERAPY IN A MEDICAID POPULATION

Kalsekar J¹, Iyer S², Mody R³, Rajagopalan R³, Kavookjian J³

¹Butler University, Indianapolis, IN, USA; ²Takeda Pharmaceuticals North America, Inc, Lincolnshire, IL, USA; ³West Virginia University, Morgantown, WV, USA

OBJECTIVES: To compare the economic consequences of treatment with either thiazolidinediones (TZD) or insulin in patients with type-2 diabetes. **METHODS:** Type-2 diabetes patients initiating TZD or insulin treatment during the three-year period (1999–2001) were identified from a Medicaid claims database.

The first prescription for a TZD or insulin was treated as an index prescription and health care costs in the 12-month follow-up period were assessed. Analysis was restricted to a compliant sample receiving at least six prescriptions of either TZD or insulin. Propensity matching techniques were used to control for selection bias and potential imbalances between the two treatment groups. Semi-logarithmic OLS models were used to estimate the impact of therapy on total and diabetes related health care costs. The costs were also examined separately in terms of Emergency Room (ER)/hospitalization, outpatient and prescription costs using appropriate two-part models. Smearing estimates were used to interpret the results from the semi-log models. **RESULTS:** The propensity-matched sample consisted of 327 patients per treatment group with comparable demographic and utilization parameters at baseline. In the 12-month follow-up period, the TZD group incurred significantly lower total health care costs (19.1%; \$10,606 vs. \$13,062), ER/hospitalization costs (58.2%; \$2432 vs. \$5826) and outpatient costs (33.9%; \$2672 vs. \$4014) compared to the insulin group. The TZD group also had significantly lower diabetes related health care costs (15.0%; \$4877 vs. \$5721), diabetes related ER/hospitalization costs (69.1%; \$1733 vs. \$5613) and outpatient costs (39.8%; \$722 vs. \$967) than the insulin group. The TZD group had significantly higher total (14.9%; \$4687 vs. \$4072) and diabetes related (63.0%; \$1353 vs. \$772) prescription costs. **CONCLUSION:** The results of the study suggest that despite its higher acquisition cost, treatment with TZD significantly reduces total and diabetes-related health care costs as compared to insulin therapy in patients with type-2 diabetes.

DB3

COST-EFFECTIVENESS OF DETECTION OF CAD BY MYOCARDIAL PERFUSION IMAGING IN ASYMPTOMATIC PATIENTS WITH DIABETES

Papatheofanis FJ¹, Marangos PJ²

¹University of California, San Diego, San Diego, CA, USA; ²Aequitas, San Diego, CA, USA

OBJECTIVE: To determine the cost-effectiveness [CE] of non-invasive myocardial perfusion imaging [MPI] in asymptomatic individuals with diabetes mellitus [DM] for detection of CAD. **METHODS:** A decision tree analysis using TreeAge™ software was completed to determine the probabilistic CE of MPI in comparison to stress echocardiography [ECHO] and do-nothing management [DNM]. Probabilities for the analysis included cardiac event incidence such as non-fatal MI and cardiac death and percent of test results reported as abnormal/positive or normal/negative for each diagnostic technique. Utilities consisted of PPV and NPV values obtained from the published literature; preference scores [zero to one scale] assigned to disease states were similarly obtained. Medicare charges for 2004 were used as surrogates of cost; mean charges for initial clinical assessment [labs, etc.], exercise treadmill testing, ECHO, and MPI were all included in the CEA. **RESULTS:** MPI demonstrated PPV of 92.9% in detecting CAD in asymptomatic patients with DM compared to a stress ECHO PPV of 80%. However, ECHO is the dominant strategy with a mean cost of \$701 and effectiveness ratio of 0.51. MPI demonstrated a mean cost of \$1084 with an effectiveness ratio of 0.60. The resulting ICER is \$4324/QALY. Importantly, DNM is dominated by MPI [p < 0.006] **CONCLUSIONS:** MPI is more effective and more costly than stress ECHO but meets generally-regarded WTP thresholds in asymptomatic individuals with DM. Use of diagnostic data from MPI may impact clinical outcomes such as cardiac events by influencing early management decisions.