and 0.008 (D1) and 0.003, 0.013, 0.026 and 0.052 (S1) for baseline event rates of 1, 5, 10 and 20 per year respectively. CONCLUSIONS: Nonlinear models of NSHE duration typically show greater benefit per NSHE avoided in subjects with a lower frequency of events. As hypoglycemia frequency increases the marginal utility gain per NSHE avoided decreases. Nonlinear equations provide a more plausible estimate of the health benefit associated with the avoidance of NSHE.

PDB85

ECONOMIC IMPACT OF HEALTH INSURANCE STATUS ON HEALTH CARE RESOURCE UTILIZATION AMONG DIABETIC PATIENTS IN THE UNITED STATES

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OBJECTIVES: This study aimed to estimate the impact of health insurance status in adult diabetic patients on health care resource utilization and costs.

METHODS: We identified 19,604 patients in the Medical Expenditure Panel for the 2011 cycle and were included if they had a diabetes diagnosis and were 18 or older. The insurance status was defined as private, public or uninsured. RESULTS: Of the 2,180 patients, 9% were uninsured, 31% had public health insurance and 60% had private health insurance. Uninsured patients were younger, more likely to be a racial minority, in the lower income or poor categories, with lower education compared to those with private insurance. After age adjustment, they were significantly less likely to be on Thiazolidinediones (0.03%, 11.4% and 11.1%) or anti-diabetic combination (5.2%, 14.6% and 17.3%), for uninsured, public and private, respectively. Average health care resource utilization was lowest among patients without health insurance compared to private and public, office visits (4.9, 11.1 and 9.5), outpatient facility visits (0.4, 0.9 and 1) and hospital discharge (0.1, 0.3 and 0.2). Uninsured patients had lower average health care expenditures, ($31,585, $15,844 and $15,377), emergency room expenditures ($208, $253 and $282) and office visits expenditures ($252, $343 and $414), for uninsured, public and private, respectively.

CONCLUSIONS: It is important to assess whether lower resource utilization for uninsured patients impacts their current health status and is associated with long term worse outcomes and increased health care.

PDB86

METHODOLOGICAL CHALLENGES IN CALCULATION OF DAILY AVERAGE CONSUMPTION (DACON) FOR GLP-1 RECEPTOR AGONIST INJECTABLES FROM CLAIMS DATA

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OBJECTIVES: This US study aimed to determine average daily dosing of liraglutide from a national payer perspective. METHODS: This study utilized 211,184 liraglutide pharmacy claims from the national Truven MarketScan® Database (10/1/2011-12/31/2013). We conducted a systematic review of cost-utility analyses (CUAs) related to diabetes published through 2012, using the Tufts Medical Center CEA Registry. We also examined factors independently associated with favorable ratios. We used the 2008-2012 Humedica electronic medical record data to estimate the potential cost-savings and health benefits associated with liraglutide in real-world diabetes patients. RESULTS: Our study identified 196 diabetes CUAs. Most examined pharmacological (55%) and focused on treatment rather than prevention (82%). A health care payer perspective (71%) and industry-sponsored (52%). 497 published cost-utility ratios, 82% examined a guideline-recommended intervention. Approximately 73% of interventions examined in diabetes CUAs were assessed to be cost-effective (≥50 QALY gain per $100,000 costs). Logistic regression analysis showed that high-quality CUAs or CUA conducted from the US perspective were more likely to report favorable ratios. Ratios for surgical interventions and interventions recommended by diabetes guidelines were more favorable than other intervention types. Of 7,907 eligible patients, 6,500 could be shifted to cost-saving treatments, saving more than $11 million and gaining more than 1,800 QALYs. CONCLUSIONS: Our findings suggest that most diabetes cost-utility evaluations evaluated by CUAs should be recommended by low-cost interventions and may provide good value for money. Our results also indicate that patients and the health care system could benefit considerably from shifting to greater use of cost-saving interventions.

PDB84

WEIGHT CHANGE AND HEALTH CARE RESOURCE USE (HCRU) IN ENGLISH PATIENTS WITH TYPE 2 DIABETES MELLITUS (T2DM) INITIATING A NEW ANTIDIABETIC DRUG CLASS

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OBJECTIVES: The contribution of weight change to the economic burden of T2DM is unclear. This study investigated associations between weight change and HCRU in patients with T2DM initiating new antidiabetic drug class.

METHODS: Patients with T2DM initiating new antidiabetic drug classes (first-line, switch or add-on) between 01/01/05-01/01/12 were identified in UK Clinical Practice Research Datalink primary care (PC) records linked with Hospital-Episode Statistics. Baseline characteristics and HCRU were assessed (index date was the treatment initiation date (TXI) or last claim date) was observed 6 months after. HCRU was followed up to one year after index and included diabetes-related PC contacts and prescriptions, and all-cause hospitalisations. Weight change was categorised as: <3.0% change (weight-neutral), 3.0%–5.4% gain (gains), >5.5% gain (gains+), 3.0%–5.4% loss (losses), >5.5% loss (losses+). Comparisons between weight groups were conducted using negative binomial regression.

RESULTS: We identified 192,964 patients. Of these, 187,012 patients met all eligibility criteria: 8,679 patients were excluded due to missing BMI (194,096). The mean age was 65.1 years (SD 9.9) with 49.1% males and 50.9% females. The mean duration of diabetes was 6.5 years (SD 6.1) and the mean baseline HbA1c was 7.8% (SD 1.3). 84.2% of patients were taking metformin. When compared to weight-neutral patients, the gain group had a higher burden of Medicare costs, mean (±SD) $25,124 (±$11,304). The losses group had a higher burden of Medicare costs, mean (±SD) $23,858 (±$11,465). The differences were significant for Medicare Part B costs, mean (±SD) $4,656 (±$2,263) and Medicare Part A costs, mean (±SD) $4,371 (±$2,536). These differences are consistent across gender and age subgroups. A significant positive correlation was observed between weight change and Medicare Part B costs (p < 0.0001) and Medicare Part A costs (p < 0.0001). When compared to weight-neutral patients, the loss group had a lower burden of Medicare costs, mean (±SD) $26,151 (±$2,775). These differences were significant for Medicare Part B costs, mean (±SD) $8,313 (±$3,680) and Medicare Part A costs, mean (±SD) $5,914 (±$3,295). These results are consistent across gender and age subgroups. A significant negative correlation was observed between weight change and Medicare Part B costs (p < 0.0001) and Medicare Part A costs (p < 0.0001).