with target drugs. The purpose of this study was to ascertain whether revocation of the PA requirement resulted in inferior rates of HbA1C testing amongst new users of these drugs. **METHODS:** Data on of new users of the target drugs and on HbA1C testing in these patients was extracted from EPR databases for the six-month post-revocation period. The proportion of patients who performed at least one HbA1C test during the four months prior to initiation of treatment and 95% confidence intervals were calculated. The data were stratified by month to detect possible trends in rates of testing during the post policy-change period. **RESULTS:** After rescinding the PA requirement, HbA1C testing amongst incident users of the target drugs dropped from 100% during the PA period to rates of 85.6% (95% CI = 79.7, 91.5) to 94.4% (95% CI = 90.8, 97.9). Statistically significant variance in monthly rates of testing was not observed. **CONCLUSIONS:** The PA requirement resulted in total performance of a lab test necessary to monitor drug-therapy outcomes in diabetic patients. When PA is implemented as a quality-assurance strategy, revocation should be accompanied by continuing-education efforts to maintain adherence to recommendations for appropriate care.

SHORT-TERM OUTCOMES FOR AN EMPLOYER SPONSORED PHARMACIST- PROVIDED MULTI CENTER DIABETES MANAGEMENT PROGRAM

PDB53

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OBJECTIVES: To measure the impact of pharmacist-provided diabetes management program on the economic, clinical, and humanistic outcomes for the City of Toledo employees and their dependents for a period of 6 months. **METHODS:** This is a prospective, pre-post longitudinal study. Clinical outcomes collected were A1c, blood pressure (BP), and body mass index (BMI). These outcomes were measured at the baseline, 3 and 6 month visits. Economic outcomes include cost of physician office visits, emergency room visits, and inpatients days. These outcomes were measured at baseline and 6 month visits. Humanistic outcomes collected were quality of life (using Sf36v2), patient satisfaction, adherence with medications, and knowledge about diabetes. The quality of life and knowledge about diabetes were measured at baseline and 6 month visits. The patient satisfaction and adherence with medications (using Morisky scale) were measured at baseline and 3 months visits. Wilcoxon-Signed rank test was used to compare variables at two time points. Friedman test was used to compare variables at multiple time points. Preliminary data analysis for the period between baseline visit to 3 months visit is given below. **RESULTS:** Ninty five patients have been enrolled to date. Mean A1c's have decreased significantly from 7.78 at baseline visit to 7.44 at 3 months (p = 0.05) (N = 59). For Intention to treat population (baseline A1C > 7), the decrease in A1c is even more significant (p = 0.01) (N = 33). Diastolic blood pressure has decreased significantly (p = .001) while systolic blood pressure and BMI have decreased non-significantly. Self monitoring of blood glucose has increased significantly (p = 0.01). Patient satisfaction and adherence with medications has also improved significantly at three-month follow-up visit (p < 0.05). Final results for the period between baseline visit to 6 months including economic outcomes will be presented at the ISPOR 14th Annual International Meeting. **CONCLUSIONS:** Preliminary data analysis showed that pharmacists can improve the clinical outcomes in patients with diabetes.

DULOXETINE THERAPY AND CHANGES IN OPIOID USE AMONG DIABETIC PERIPHERAL NEUROPATHIC PAIN PATIENTS

PDB54

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OBJECTIVES: This study examined changes in opioid medication utilization following treatment for diabetic peripheral neuropathic pain (DPNP). **METHODS:** We studied commercially insured individuals aged 18–64 years who were dispensed duloxetine or other DPNP standard of care (SOC) medications (i.e. escitalopram, venlafaxine, gabapentin, amitriptyline, or pregabalin) between March 1, 2005 and December 31, 2005. The dispense date of the initial agent was denoted as the "index date." Patients included were diagnosed with DPNP in the 1 year prior to index and received opioids in the prior 90 days. "Duloxetine" and "SOC" cohorts were constructed based on index agent. Patients in the duloxetine cohort were required to be "continuous" users (medication possession ratio ≥0.8). We assessed changes in long-acting (LA) and short-acting (SA) opioid utilization one year before and after the index date. Multivariate linear regressions were performed to control for differences in patient demographic and clinical characteristics between study cohorts. **RESULTS:** We identified 97 duloxetine patients and 943 SOC patients. Study cohorts were similar in age (mean = 55 years) and proportion female (53%). Over 87% and 20% patients in each cohort were dispensed an SA and LA opioid in both the pre- and post-index periods, respectively. Hydrocodone was the most common SA opioid, followed by propoxyphene. Oxycodone and tramadol were the most common LA opioids. Compared to SOC patients, continuous duloxetine patients had a greater reduction in days on SA hydrocodone (25.8 days, p < 0.05), number of SA hydrocodone prescriptions (1.4, p < 0.05), and days on DPNP-related SA opioids (15.5, p = 0.09). Continuous duloxetine users also had greater reduction in days on LA oxycodone compared with the SOC patients (8.9, p < 0.05). **CONCLUSIONS:** These findings among DPNP patients indicate that continuous duloxetine users were more likely to have a reduction in use of SA opioids and LA oxycodone versus SOC patients.

UTILIZATION OF ANTIDIABETIC MEDICATIONS OF PATIENTS WITH TYPE 2 DIABETES COVERED BY VARIOUS TYPES OF HEALTH INSURANCE IN A US NATIONAL REPRESENTATIVE POPULATION IN YEAR 2005–2006

PDB55

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OBJECTIVES: The impact of various medical insurance structures on the quality of care is not clearly understood. Drug utilizations patterns of type 2 diabetes patients may be affected by health care access, which vary across various types of health insurance and may lead to disparities in disease control and clinical results. **METHODS:** A cross-sectional analysis was conducted on data from the National Health and Nutrition Examination Survey (NHANES) 2005–2006. Based on data from survey, patients aged 20 years and older with diagnosed type 2 diabetes were classified as patients with commercial insurance, Medicare and/or Medigap, Medicaid, multiple insurance, other types of insurance and no health insurance coverage. Likelihood of oral anti-diabetic medications, insulin or combinations and the likelihood of having successful Glycemic control were modeled with multi-variables logistic regression analyses with adjustment for age, gender, BMI, ethnicity, diabetic complications, household incomes and important co-morbidities. **RESULTS:** A total of 403 diabetic patients were included in the analysis. Compared to commercially-insured patients, patients under Medicare (OR = 1.36, 95% CI = 0.62, 3.00) or Medicaid (OR = 2.32, 95% CI = 0.76, 7.04) were more likely to be treated with insulin, but less likely to receive oral anti-diabetic medications (OR = 0.19, 95% CI = 0.09, 0.40 for Medicare; OR = 0.19, 95% CI = 0.07, 0.51 for Medicaid). The likelihood of having successful glucose control varied but was not significantly different across types of plans (P > 0.05). **CONCLUSIONS:** Treatment patterns varied across various types of health insurance plans and might have impact on the optimum quality of care and expenditure implications.

THE EFFECT OF VALUE-BASED INSURANCE DESIGN ON ADHERENCE TO DIABETES MEDICATIONS: A MATCHED DIFFERENCE IN DIFFERENCE EVALUATION

PDB56

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OBJECTIVES: To evaluate the impact of value-based insurance design (VBID) on adherence to diabetic medications. **METHODS:** Health Alliance Medical Plans of Illinois piloted VBID by placing at least one diabetic drug in each class at Tier 1 with a $10 copayment for a subgroup of 5400 enrollees in January 2007, while keeping drug benefits unchanged for all other plan enrollees. A matched difference in difference method (DID) was used to evaluate the effect of VBID, based on pharmacy claim data. Patients with unchanged benefits in the same plan were used as the control group. Patients included in the analysis needed to be continuously enrolled from January 2006 to December 2007 and have used diabetic medications in both years. Adherence was measured by the proportion of days covered (PDC). A logistic model was used to model the probability of having PDC >= 0.8. A 1-to-1 matched control group was generated based on propensity score. **RESULTS:** There were 71 patients in the case group and 5037 patients in the control group. The matched control group had 71 patients with similar propensity score, baseline characteristics and baseline adherence level with the case group. After the implementation of VBID, the average copayment for diabetic medications decreased from $21.70 to $14.00 for the case group and increased from $19.60 to $22.00 for the matched control group. The probability of being adherent increased from 69% to 79% for the case group and decreased from 72% to 70% for the matched control group. The matched DID model showed that VBID increased the probability of being adherent: OR = 1.84, 95% CI: 0.96–3.54, p = 0.068. The full sample DID estimated OR = 1.56 with p = 0.065. **CONCLUSIONS:** A VBID program that reduced the copayment for diabetic medications by 35% improved the odds of adherence by 84% and reduced the number of non-adherent patients by 35%.

MEDICATION NONADHERENCE AND POTENTIALLY AVOIDABLE HOSPITALIZATIONS AMONG PATIENTS WITH DIABETES

PDB57

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OBJECTIVES: To examine the association between medication adherence and potentially avoidable hospitalizations (PAHs) among Medicare part D enrollees with diabetes. **METHODS:** A longitudinal retrospective cohort study of 493,609 Medicare part D enrollees with diabetes from 6 states (Alabama, California, Florida, Mississippi, New York and Ohio) who had filled at least 1 prescription for oral hypoglycemics, angiotensin-converting enzyme inhibitors/angiotensin II receptor blockers, and statins. Adherence was calculated as proportion of days covered for all three classes of medications using Part D records for the first 6 months of 2006. A summary measure of adherence was computed for each patient as an ordinal variable – adherent to none, any one class, any two classes and all three classes of medications. Medicare part A records for the next nine months were used to identify PAHs, as defined by the AHRQ's Prevention Quality Indicators for diabetes care. Logistic regression was used to assess the association between nonadherence and PAHs. **RESULTS:** A total of 16.2%, 15.7%, 27.3% and 40.8% of patients were adherent with none, any one class, any 2 classes and all three classes of medications respectively. A total of 23,222 (4.7%) patients had at least one PAH, 0.12% had an admission due to diabetes short-term