There are currently many kinds of sulfonylurea agents taken as the first-line drugs for patients with diabetes mellitus (25%). The starting dose was 100 mg for 93% of patients. Concomitant use of the first-line drug duloxetine or pregabalin was included in 37% of patients. Concomitant antihyperglycemic medications at index (100 to 15 days post-index) included metformin (35%), thiazolidinediones (41%), sulfonylureas (37%) and insulin (16%). Seven percent had no concomitant antihyperglycemic medications. RESULTS: The mean (SD) number of concomitant medications was 1.9 ± (1.0). Insulin use increased from 16% to 23% (p < 0.001), in the 12 month post-index period. Other concomitant medications showed little change. The medication possession ratio (days supply/365 days) in patients with ≥1 prescription claim was 74 ± 29%. Clinical effectiveness was measured in patients with baseline (6 months pre-index – 1 month post index) and post-index (60–365 days) A1C data (n = 102). Mean (SD) baseline A1C was 7.6% ± 1.1% (with a mean reduction of 0.2% ± 1.1% [mean duration of follow-up: 246 ± 81.6 days]). Of 72 patients with a baseline A1C ≥7.0%, 21 (29%) achieved an A1C goal of <7.0%. CONCLUSIONS: This study reports real-world analyses of sulfonylurea patient characteristics and effectiveness. Adherence to therapy was similar to that for other oral antihyperglycemic drugs, but mean reduction in A1C and percent to goal were less than in clinical trials, despite an increase in the percent of patients using insulin.

**COMPARISON OF DOSING PATTERNS OF DULOXETINE AND PREGABALIN AMONG PATIENTS WITH DIABETIC PERIPHERAL NEUROPATHY NC PAIN**

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OBJECTIVES: To compare dosing patterns between duloxetine and pregabalin among patients with diabetic peripheral neuropathy (DPNP).

METHODS: Using the administrative claims database in the United States, we examined commercially insured individuals aged 18-64 who dispensed duloxetine or pregabalin in 2006. The date of the first duloxetine or pregabalin prescription dispensed was defined as the index date. All patients selected were diagnosed with DPNP and had continuous enrollment over the 12-month pre-index period. Each patient was classified in the duloxetine or pregabalin cohorts based on the index agent, and all duloxetine or pregabalin prescriptions filled over the 12-month follow-up period were examined. We compared the average daily dose of all prescriptions per person, average daily dose in each of the first 10 prescriptions, and percent of daily dose change from previous prescription between duloxetine and pregabalin cohorts. RESULTS: Among 603 duloxetine patients and 1751 pregabalin patients, the average daily doses of all prescriptions were 51.2mg and 179.8mg for duloxetine and pregabalin, respectively. The average daily dose for the 1st and 10th duloxetine scripts were 53.8mg (95% Confidence Interval (CI): 52.4, 55.2) and 64.9mg, while the numbers were 166mg (95% CI: 162, 170) and 264.3mg (95% CI: 244.1, 284.4) for pregabalin. The changes in daily doses from previous prescription were 0.2–0.4% for duloxetine and 0.8–12.5% for pregabalin, respectively. The percentage of change in daily dose from the 1st to 10th prescription was significantly higher for pregabalin (59.2%) than for duloxetine (20.7%) (p < 0.05). CONCLUSIONS: DPNP patients on duloxetine or pregabalin experienced very different dosing patterns. The average daily dose for duloxetine was relatively stable over time, while pregabalin patients had significant dose escalation over the 12-month follow-up period.

**THE EFFECTS OF SUSTAINED-RELEASE GLIPIZEIDE VS GLICLAZIDE FOR TYPE 2 DIABETES MELLITUS: A SYSTEMATIC REVIEW OF RANDOMIZED CONTROLLED TRIALS**

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OBJECTIVES: There are currently many kinds of sulfonylurea agents taken as the first-line drugs for patients with diabetes. As the second-generation sulfonylureas, we will compare the pharmacoeconomics (pharmacy costs, hospitalization costs, and glycemic and glomerular outcomes) of sulfonylureas in type 2 diabetes mellitus. METHODS: A systematic review of randomized controlled trials (RCTs) was conducted. PUBMED, EMBASE, The Cochrane Library, three Chinese Databases (CMIB, CNKI, and VIP), as well as the citations of the references were searched from their inception to July 31, 2008. The pharmaceutical companies were contacted for unpublished studies. Trial selection, quality assessment and data extraction were performed by two reviewers independently. We pooled the trial data using the random-effect model and explored the heterogeneity by the pre-specified variables. RESULTS: Only two trials (n = 190) compared the extended-release glipizide with glimepiride based on the treatment of metformin or acarboside and diet control. The quality of included trials was poor. Only randomized trials were mentioned without detailed information on the methods of generating randomization sequences, concealment allocation, and blinding. The durations of follow-up(12 weeks) were long-term effects of the diabetes morbidity and mortality. Both sustained-release glipizide and glimepiride had significantly reduced HbA1c, fasting and postprandial blood glucose from baseline to the end of treatment. However, there was no significant difference between groups, including the changes of HbA1c (weighted mean difference: $0.13, 95%CI = 0.21 [0.03–0.29], p = 0.36), fasting glucose (−0.07 [−0.11, 0.02], p = 0.30) and postprandial blood glucose (1.00 [−0.80, 3.60]). There is similar safe profiles in hypoglycemia, changes of lipid and body weight, and liver and renal functions. CONCLUSIONS: The limited evidence showed that both extended-release glipizide and glimepiride are effective in improving diabetes-related outcomes and effects profile. More high-quality RCTS are expected to explore the effects of different sulfonylurea agents.