PDB131
UNITS AND COSTS PER DAY PER CLAIM OF COMPARABLE INSULINS SUPPLIED TO MEDICAID PATIENTS
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OBJECTIVES: To compare units per day per claim (units) and costs per day per claim (costs) of comparable insulin products by Eli Lilly and Company (LLY) and Novo Nordisk (NN), adjusting for baseline patient differences, in state Medicaid claims data. METHODS: Claims for comparable LLY or NN insulin for patients with continuous coverage for ≥6 months before their first observed insulin claim (baseline) were identified from Missouri (MO: 1/1/2011-3/31/2012) and New Jersey (NJ: 1/1/2011-3/31/2012) de-identified Medicaid claims data. Units used to determine the cost of insulin were multiplied total quantity per claim (in mL) by strength (1 mL = 100 units) and dividing by total days supplied. Costs were calculated for patients aged <65 years only, because the majority of claims before and after 06/2006 were covered by Medicare rather than Medicaid by dividing the cost of a claim to insurers by total days supplied. Regression-adjusted units and costs were estimated using generalized estimating equation models, accounting for baseline demographics, select comorbidities, and supply of diabetes medication use. RESULTS: Claims for 23,325 MO and 9,749 NJ Medicaid patients were analyzed. Compared with NN insulin users, LLY insulin users were significantly younger, had lower rates of comorbidities, and higher rate of baseline insulin use. The regression-adjusted units for all comparable LLY and NN insulin was similar, but with the exception of significantly lower units for insulin lispro (MO only: 67.6 vs. 73.2, P = 0.0009) and LLY human insulin regular vials (MO: 65.4 vs. 78.3, P = 0.001) in MO. 45 vs. 50.3, P = 0.0365). The regression-adjusted overall cost was significantly lower for comparably LLY vs. NN insulin (MO: $5.7 vs. $6.1, P = 0.0046; NJ: $4.6 vs. $5.5, P = 0.0001). CONCLUSIONS: In both MO and NJ Medicaid, the units of comparable LLY and NN insulin in years were similar for patients with diabetes, however, the overall cost was significantly lower for comparable LLY vs. NN insulin.

PDB132
EXPENDITURE AND UTILIZATION TRENDS OF THE ANTIDIABETIC AGENTS IN QATAR (2007-2012)
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OBJECTIVES: In Qatar, over 20% of the population has diabetes. While this is considerable and is associated with a high consumption of antidiabetic drugs, there does not seem to be any published reports discussing the utilization and expenditure of antidiabetics in Qatar. This project sought to assess the trends of utilization and expenditure of antidiabetic drugs at Hamad Medical Corporation (HMC), the major health provider in Qatar, over time. METHODS: The study was from the HMC perspective, retrospectively obtained antidiabetic utilization and expenditure data from HMC drug utilization database (2007-2012). Defined Daily Doses were used as the utilization unit. Data were organized according to drug, drug concentration, drug class, and hospital, and year. Descriptive statistics were used to illustrate distributions of variables, and cross-tabulation was used to provide comparison of frequency data, used to generate data tables and charts as appropriate. RESULTS: The utilization and expenditure of antidiabetic drugs increased over time. The increase in utilization and expenditure is consistent with the increasing prevalence of diabetes. The most common antidiabetic agent was the sulfonylureas, which showed the highest expenditure. Out of eight hospitals in HMC, Hamad General was the hospital utilizing drugs the most. This was consistent with antidiabetics expenditures at their first observed insulin claim. Between 1987 and 2010, the number of glucose-lowering medications filled during the year increased by 0.2 but was not significant. Although the results show that overall diabetes drug expenditures significantly decreased for seniors by $159, DD estimates show that Part D increases diabetes drug expenditures and decreases average diabetes drug use among minorities 65 years of age and older compared to whites by $42. CONCLUSIONS: The findings demonstrate that Medicare Part D significantly reduces out-of-pocket expenditures and increases diabetes drug use, however, African-Americans and Hispanics do not benefit as much as other words. Part D does not reduce racial disparities in diabetes drug expenditures. Additionally, Part D did not have any significant effect on diabetes drug use.

PDB133
CLINICAL AND DEMOGRAPHIC CHARACTERISTICS OF PEOPLE WITH TYPE 2 DIABETES MELLITUS (T2DM) INITIATING CANAGLIFLOZIN FROM A UNITED STATES MANAGED CARE SAMPLE
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OBJECTIVES: We present the first sociodemographic and clinical characteristics of patients receiving their first prescription for canagliflozin (CANA) – a GLP-1RA to be approved to treat adults with T2DM in the US. This study describes the early prescription pattern of patients receiving CANA in routine clinical practice. Clinical and demographic characteristics as well as treatment history are summarized. METHODS: This retrospective cohort study used data from a large US health plan for commercial and Medicare Advantage enrollees with T2DM filling a prescription for CANA between market entry on April 1 and June 30, 2013. Analysis included demographics, first prescriber specialty, and prior use of antihyperglycemic agents (AHAs) preceding a CANA prescription, and A1C level prior to initiation, where available. The diabetes complications severity index (DCSI) was used to capture baseline health status. RESULTS: In this sample of patients receiving CANA (n=1088), 44% were female, geographically skewing toward the South (62%). The average age was 56 years. Approximately 48%, 30%, 5% of CANA prescriptions could be attributed to primary care physicians, endocrinologists, and other specialists, respectively. The median A1C and BMI were 7% and 30.6 kg/m2, respectively. The most common prior A1C dose was 100mg (71%), and the median (SD) number of other T2DM medications at baseline was 1.66(1.0) with oral AHA (41%) and GLP-1 (17%) being the most commonly used combination treatments. AHA (31%) was the most common pre-treatment dual therapy. For patients with available lab data (N=350), 32% had baseline A1C <9%, 38% had 7.5 to <9%, 20% had 6.5 to 7.5%, and 1% had <6.5%. The mean (SD) DCSI was 0.75(S.11); 56% had a zero DCSI value at baseline. CONCLUSIONS: This study characterizes patients initiating routine clinical practice immediately after CANA became available in the US. This early prescription pattern indicates CANA was prescribed by primary care physicians and endocrinologists across a range of A1C levels and following a variety of AHAs. 

PDB134
EXPENDITURE TRENDS OF THE GLUCAGON-LIKE PEPTIDE-1 RECEPTOR AGONIST TAN dileA cannabinoid IN TYPE 2 DIABETES MELLITUS
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OBJECTIVES: To compare medication use and treatment patterns of glucagon-like peptide-1 receptor agonist (GLP-1RAs) among type 2 diabetes mellitus (T2DM) patients newly initiating exenatide once weekly (exenatide QW), exenatide twice daily (exenatide), or liraglutide. METHODS: This administrative claims-based retrospective cohort study included patients if they had T2DM, were GLP-1RA-naive, initiated a GLP-1RA between 2/1/2012-1/31/2013 (initiation date-index), were aged ≥18 years, and had enrollment for 12 months before (baseline) to 6 months after index (follow-up). Outcomes included index GLP-1RA adherence (proportion of follow-up days covered, dichotomized at ≥90% vs. <90%) and non-persistence (continuous utilization of index GLP-1RA or gap ≥60 days in index GLP-1RA during follow-up). Multivariable regressions (logistic for adherence, Cox proportional hazards for persistence) compared outcomes among index GLP-1RAs, adjusting for potential confounders. Sensitivity analyses included participants who were persistent at the index GLP-1RA, or gap ≤60 days in index GLP-1RA during follow-up. RESULTS: Multivariable regressions (logistic for adherence, Cox proportional hazards for persistence) compared outcomes among index GLP-1RAs, adjusting for potential confounders. Sensitivity analyses included participants who were persistent at the index GLP-1RA, or gap ≤60 days in index GLP-1RA during follow-up.
ied across GLP-1RAs and analyses (ranging from 2.162 [p = 0.001] for exenatide vs. exenatide QW and internal adherers, to 0.986 [p = 0.798] for liraglutide 1.8mg vs. exenatide QW among initial adherers). CONCLUSIONS: Among patients newly initiating exenatide QW, exenatide, or liraglutide, adherence was consistently highest for exenatide QW, while non-persistence varied by analyzed group.

PDB137
REVIEWS OF THE USUAL TREATMENT OF ADULTS WITH TYPE 2 DIABETES IN JAPAN
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OBJECTIVES: The personal and economic burden of diabetes is substantial and growing in Japan due to its aging population. This study aimed to review the available literature of usual treatment of adults with type 2 diabetes (T2DM) in Japan. METHODS: Systematic search of the scientific literature was performed on MEDLINE and EMBASE databases to identify publications about usual care of diabetes in Japan written in English or Japanese and published between January 2000 and March 2011. Randomized clinical trials, comparative or interventional studies were excluded. Of 17 publications that met search criteria, 13 pertained to adults with T2DM, of which 9 contained original survey data and 4 were literature reviews. RESULTS: Almost all of the available data was at least 7 years old. Based on data from 2000 to 2002, the use of oral anti-diabetic drugs (OAD) alone was the most prevalent treatment option (51.4%), followed by diet alone (25.4%), insulin alone (15.4%), and OAD with insulin (7.8%). Although overall, sulfonylureas was the preferred class of OAD (61-67%), its use among treatment initiators has dramatically declined from 40% to 22% following the introduction of dipeptidyl peptidase-4 inhibitors (DPP4) in 2009. Since then, the use of the rate of DPP4 increased to nearly 60% due to its perceived better safety. CONCLUSIONS: Available data on the treatment of diabetes in usual care in Japan is rather sparse and not recent. Results indicate that the treatment of adults with T2DM is similar but with OAD and similar to that in the US and Europe, although the specific OAD in Japan is different. Further research is needed on the usual treatment of diabetes in Japan, considering increased longevity, lifestyle changes, ongoing introduction of new medications, changes in disease management practices and increased economic concerns.

PDB139
UNDER-DIAGNOSIS OF TYPE II DIABETES AMONG CHILEAN ADULT MEN: AN URGENT EQUITY ISSUE
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OBJECTIVES: Type II Diabetes Mellitus (DM) is exponentially growing in Chile. A recent reform aimed at reducing inequities in health care in the country, but the gap between social groups continues to grow. We aimed at estimating the prevalence and socio-demographic characteristics of those having the condition but ignoring it. For population-representative analyses we used Stata 12.0. RESULTS: There was a significantly higher rate of self-reported DM among women than men (5.0% versus 4.7%), those living in urban versus rural settings (6.7% and 1.0%). People with self-reported DM were on average 17 years older than people without previous diagnosis (mean: 57.1). According to lab results, 8.4% of the total population had HbA1c > 9%. From the self-reported DM (4.6%) had not been diagnosed with this condition before, representing over 280,000 people. They are mostly middle-aged men (mean age 46.6) from low and middle SES and living in urban areas. CONCLUSIONS: We found an under-diagnosis of type II DM among middle-aged male adults in Chile. Few recent studies report the urgent need to develop community-based strategies to enhance male use of health care, particularly to pursue screening consultations even when feeling healthy. This study supports such initiative and challenges the complex relationship between gender and SES, which could be further explored in Chile.

PDB140
OUT-OF-POCKET SPENDING AND FINANCIAL BURDEN OF PRESCRIPTION DRUGS FOR DIABETES: 2007-2010
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OBJECTIVES: To examine the changes in out-of-pocket spending and financial burden of prescription drugs for diabetes between 2007 and 2010. METHODS: The Medical Expenditure Panel Survey for 2007-2010 was analyzed for patients with diabetes. Out-of-pocket spending was defined as any self-reported coinsurance and deductibles, as well as payments for prescription medications that were not covered by insurance. Financial burdens for prescription drugs was measured using the proportion of out-of-pocket expenditures divided by total family income in a given year. Expenditures for each year were adjusted using Consumer Price Index. RESULTS: The out-of-pocket spending for prescription drugs for treating diabetes was dropped significantly from $1,255 in 2007 to $1,097 in 2010 (p < 0.05). The percentage of total expenditure for prescription drugs for diabetes increased dramatically from $875.9 to $1,012.6 during the same period. This declined out-of-pocket spending was observed across different age, gender, and racial groups. From 2007 to 2010, the financial burden of prescriptions drugs for diabetes increased from 0.8% to 1.1%, which was largely driven by declined annual family income ($56,139 in 2007 to $52,811 in 2010). This increasing trend was observed particularly among diabetic patients with low family income (2.3% in 2007 to 5.0% in 2010). In the contrast, the financial burden of medications was relieved for those aged younger than 18 years old (1.8% in 2007 to 0.3% in 2010). Patients receiving insulins and thiazolidinediones had higher out-of-pocket spending as well as financial burden than those who only treat diabetes. CONCLUSIONS: Patients’ drug costs were reduced successfully between 2007 and 2010. However, the financial burden of prescription drugs for diabetes increased over time to decrease in spending. The use of preferred medications is a vital part of diabetes management, more efforts should be directed to patients with low family income in order to improve affordability of prescription drugs.