group, mail-order pharmacy users demonstrated a significantly higher PDC (0.68 vs. 0.61; P<0.001) throughout the benefit year. More patients in the mail-order pharmacy group (49.7%) were adherent with their oral antidiabetic medications compared to 42.8% in the retail pharmacy group. **CONCLUSIONS:** Adherence with oral anti-diabetic medications among Medicare Part D beneficiaries is suboptimal. Patients using mail-order pharmacy were likely to have better adherence than those who used retail pharmacies for their medication refills. The causal relationship between mail-order pharmacy use and adherence, however, should be further examined in a randomized study setting.

PDB38
A COMPARISON OF INSULIN ADHERENCE IN PATIENTS WITH TYPE-2 DIABETES INITIATING THERAPY WITH INSULIN DETEMIR FLEXPEN® OR NPH INSULIN IN A VIAL

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OBJECTIVES: Non-adherence to insulin therapy in patients with type 2 diabetes presents a serious challenge. Potential explanations for non adherence may include aversion to insulin self-injection and fear of hypoglycemic events. In clinical trails, insulin analogs have shown to reduce the risk of hypoglycemic events versus human insulins, and a recent review suggests that insulin delivered via a pen device may result in greater adherence versus vial and syringe. This study was conducted to compare the adherence rates of patients initiating basal insulin therapy with insulin detemir (IDet) FlexPen® versus those initiating basal insulin therapy with NPH via vial and syringe. **METHODS:** Data were gathered from a large US national payer retrospective claims database, and included only patients with type 2 diabetes that initiated basal insulin therapy with either IDet FlexPen® or NPH in vials. Patients with claims for any other type of insulin, other than the index insulin formulations during the 12-month observation period were excluded. Patients were defined as being adherent to therapy if they had a medication possession ration (MPR) of at least 0.80 in the 12-month follow up period. **RESULTS:** The IDet FlexPen® cohort (n=1082) and the NPH vial cohort (n=794) were of similar age (54.06 vs. 53.13, p=0.134); however, the IDet FlexPen® cohort had a lower proportion of female patients (44% vs. 55%, p<0.001) and fewer patients without a history of pre-index OADs (9% vs 45%, p<0.001), than the NPH vial cohort. After controlling for important confounders, patients initiating insulin therapy with IDet FlexPen® were 39% more likely to achieve an MPR of 0.80 or greater versus patients initiating insulin therapy with NPH vial (95% CI: 1.04-1.85). **CONCLUSIONS:** These results suggest that adherence may be improved for patients initiating basal insulin therapy with IDet in the FlexPen® versus NPH in a vial.

PDB39
A DESCRIPTIVE ANALYSIS OF TREATMENT ADHERENCE WITH GROWTH HORMONE: FINDINGS FROM A NATIONAL MANAGED CARE POPULATION IN THE UNITED STATES

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OBJECTIVES: To describe adherence with growth hormone (GH) treatment by age group among newly initiated patients. **METHODS:** Somatropin pharmacy claims were selected from July 1999 through May 2008 in PharMetrics, a national managed care dataset. Continuous eligibility for 6 months before and 12 months after the first GH prescription (i.e., index date) was required. Patients were excluded if they had: claims for brands of somatropin used for HIV-associated wasting; potential data entry errors in key variables; or had a claim for GH product no longer on the market. Adherence was assessed using medication possession ratios (MPRs) defined as the sum of days supply divided by 360 days of observation and capped at 100%. Evaluations by age group included average MPR, percentage of patients with at least 80% MPR, and percentage of patients who stay on therapy (i.e., persistence) for at least 80% of the observation period. **RESULTS:** A total of 1355 patients receiving GH met study criteria; 64.0% males and 36.0% females. The percentage of patients receiving GH by age category was as follows: <4 (5.2%), 4 to <13 (40.9%), 13 to <18 (34.8%), 18+ (19.1%). Average MPR was greatest in the <4 age group (87.2; SE 2.8), followed by 4 to <13 (82.9; SE 1.0), 13 to <18 (80.5; SE 1.1) and 18+ (68.1; SE 1.5). Patients in the 18+ groups had significantly lower mean MPR (68.1 SD 27.2) than all other age groups (all above 80%; p<0.0001). The percentage of patients with an MPR of at least 80% was 71.4%, 69.3%, 66.1% and 44.8%, respectively. Approximately 89% of the 4 to <13 age group remained on therapy (i.e., persisted) for more than 80% of the observation period versus only 64.5% of the 18+ group. **CONCLUSIONS:** Adherence with growth hormone decreases as age increases. There is opportunity, however, for improvement in all age groups.

PDB40
EXAMINING ADHERENCE WITH MEDICATIONS USED IN TREATING DIABETIC PERIPHERAL NEUROPATHIC PAIN AND THEIR ASSOCIATION WITH ORAL ANTIDIABETIC MEDICATION ADHERENCE

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OBJECTIVES: To examine adherence to medications used in managing painful diabetic peripheral neuropathy (PDPN) and determine their association with oral antidiabetic medication (OAD) adherence. **METHODS:** A retrospective cohort analysis using the Texas Medicaid prescription claims database. Study participants were adult (30-64 years) Medicaid beneficiaries prescribed OAD and PDPN medications. Data were extracted from June 1, 2003 to October 31, 2009. The study's research objectives were to: 1) provide a description of PDPN and OAD medication use

among the study subjects; 2) determine if PDPN medication adherence differs among individual PDPN medication (i.e., TCAs, gabapentin, pregabalin and duloxetine); and 3) determine if PDPN medication adherence is related to post-index OAD medication adherence while controlling for covariates. Adherence was measured using medication possession ratio (MPR). **RESULTS:** A total of 4277 patients met the study's inclusion criteria. The overall mean MPR (±SD) for PDPN medications was 75.4% (±23.9%). Mean MPR differed significantly among individual PDPN medications (p<0.0001). Mean MPR was highest for duloxetine (85.6%±18.2%) and was lowest for pregabalin (69.4%±24.9%). The overall mean MPR (±SD) for OAD medications decreased significantly (p<0.0001) from 73.0% (±24.3%) in the pre-index period to 64.5% (±25.6%) in the post-index period. After controlling for covariates, non-adherers (i.e., MPR<80%) to PDPN medications, compared to adherers (i.e., MPR≥80%), were significantly less likely to be adherent to OAD medications [Odds Ratio (OR) =0.626; 95% CI=0.545-0.719]. **CONCLUSIONS:** Patients' adherence to PDPN medications was associated with adherence to OAD medications. Patients who were adherent to PDPN medications were more adherent to OAD medications.

PDB41
TREATMENT GAPS AMONG GROWTH HORMONE USERS IN A NATIONAL MANAGED CARE POPULATION IN THE UNITED STATES

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OBJECTIVES: To determine treatment gap trends among first time GH recipients using a large, US managed care database. To our knowledge, this is the first analysis of gaps in GH treatment using a large sample of prescription claims. **METHODS:** Somatropin pharmacy claims were selected from July 1999 through May 2008 in PharMetrics, a national managed care dataset. Continuous eligibility for 6 months before and 12 months after the first GH prescription (i.e., index date) was required. Patients were excluded if they had: claims for brands of somatropin approved for human immunodeficiency virus-associated wasting and short bowel syndrome in patients receiving specialized nutritional support, potential data entry errors in days supply, quantity dispensed or allowed amounts, had a claim for GH product no longer on the market, or incorrect doses based on data entry errors. The number and percentage of patients with treatment gaps of at least 60 days were based on reported days supply dispensing dates. **RESULTS:** A total of 1355 patients receiving GH met study criteria. The study population consisted of 64.0% males and 36.0% females. The percentage of patients receiving GH by age category were as follows: <4 (5.2%), 4 to <13 (40.9%), 13 to <18 (34.8%), 18+ (19.1%). Gaps in therapy of 60 days were calculated and results showed that 27.0% of GH patients discontinued their medication for at least 60 days within 1 year of follow-up. **CONCLUSIONS:** Gaps in therapy occur among approximately 27% of GH users during a one-year time period, regardless of age or gender. Reasons for this therapeutic gap remain unknown.

PDB42
ADHERENCE TO ROUTINE OR STRUCTURED GLUCOSE MONITORING: A QUALITATIVE EVALUATION FROM THE STEP STUDY

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BACKGROUND: Evidence regarding the value and utility of SMBG in insulin-naïve type 2 diabetes (T2DM) has been mixed. Failure to personally understand the value associated with SMBG results and/or share SMBG data with healthcare providers (HCPs) may contribute to poor treatment adherence. The Structured Testing Program (STeP) study, a prospective, cluster-randomized, multi-centered clinical trial, demonstrated that structured SMBG significantly improves glycemic control and quality of life in non-insulin-treated T2DM. In the study, 483 poorly-controlled (HbA1c ≥7.5%), insulin-naïve T2DM patients were randomized to structured testing (STG) or active control (ACG). All STG and ACG patients received free blood glucose meters and test strips. STG subjects also used the ACCU-CHEK® 360 View Blood Glucose Analysis System ("tool") quarterly to collect/interpret 7-point glucose profiles over 3 consecutive days. STG patients then brought the tool to their HCPs. **OBJECTIVES:** To evaluate STeP study patient perceptions regarding diabetes self-management and interactions with HCPs. **METHODS:** A qualitative descriptive design; data were collected via phone interviews with 59 (20 ACG, 39 STG) STeP study participants. Data were analyzed using a content analysis approach. **RESULTS:** Sample characteristics included: 54% male; 56% White; mean age 57.1 years; 49% some college or more; mean duration of T2DM 7.4 years; and mean baseline HbA1c 8.9%. Although participants from both study arms perceived SMBG as having personal value, STG patients reported additional benefits of using the tool, including: more in-depth understanding of diabetes; increased confidence in daily decision-making; more meaningful discussions with HCPs; and shared decision-making regarding treatment. **CONCLUSIONS:** Our findings suggest that use of structured testing, as part of a comprehensive intervention where patients and HCPs collaborate to gather, interpret and utilize SMBG data, promotes a positive change in how patients view SMBG, improves patient comprehension of diabetes and diabetes self-management, and increases patient participation in their treatment regimens.

PDB43
TREATMENT COMPLIANCE TO DIABETES CARE: A CROSS-SECTIONAL STUDY FROM PAKISTAN

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