OBJECTIVES: Diabetes has been increasing worldwide and the treatment of type 2 diabetes is based on lifestyle modification and pharmacological therapy. Appropriate self-care practices including lifestyle modifications and medication compliance are critical to satisfactory control and manage diabetes and to prevent from comorbidity. The objective of this study was to assess current patient medication compliance and reasons for noncompliance for patients with type 2 diabetes in Pakistan. METHODS: A cross-sectional study was conducted to collect data through structured interviews based on pre-tested questionnaire. Total 211 patients including 46% males and 54% females from the ages 25 and over were randomly selected for the study from a population of patients attending 5 primary care diabetes centers throughout Karachi. Information was collected on socio-demographic characteristics, diabetes duration and compliance to physician’s advice. RESULTS: Overall, 82% of male subjects and 61% of females, significantly older (p=0.008) than females (46 years). The mean duration of diabetes among responders was 9.2±3.8 years. Of the total, majority of patients were treated with oral medication (61%). Only 27% reported full compliance as per physician's advice for time on treatment. Oral drugs were prescribed for 55 years, significantly older (p>0.01) than those without (42 years). The most important parameter concerned the definition of an ideal prescription profile ("100%-adherer"). Assumptions simplifying the real prescription behavior did not allow to accurately reflect the variety of medications and the clinical need to change medications. Therefore, a total of eight clinically meaningful prescription profiles were derived assigning patients exclusively by the use of self-developed algorithms. For each patient a MPR estimated by standard methodology (base case) was compared with the MPR based on our novel approach. RESULTS: In the base case, the average MPR resulting from the analyzed active ingredient combinations was 80.76%. A total of 62.85% of patients had an MPR<80%. According to the novel prescription profiles, patients were distributed as follows: 59.0% mono-medication, 12.9% Single-Switcher, 11.3% Single-Drug Add-on, 2.0% Multiple-Drug Add-on, 5.0% Polytherapy consistent, 2.5% Polytherapy Add-on, 3.5% Polytherapy Drop-off, and 1.3% Polytherapy Switcher. In total, 46% of the patients were assigned to one of the categories. Comparing a base-case MPR analysis with our novel approach resulted in MPR deviations in specific patient groups of up to 27.4 percentage points. CONCLUSIONS: Probably the biggest challenge in NA analysis based on prescription data is to differentiate between physician-induced and patient-induced medication changes. The first should be reflected in the adequate profile of an NA analysis and should not be misinterpreted as NA itself. The methodology described presents a powerful alternative for defining clinically meaningful prescription patterns.

PBDA1

THE PATIENT REPORTED EXPERIENCE OF LIVING WITH DIABETIC PERIPHERAL NEUROPATHIC PAIN (DPNP)
Brod M1,2, Carson R3, Ramassamy A4, Setyawati J3
1The Brod Group, Mill Valley, CA, USA, 2Forest Research Institute, Jersey City, NJ, USA, 3Shire Pharmaceuticals, Wayne, PA, USA

OBJECTIVES: Diabetic Peripheral Neuropathic Pain (DPNP) is a poorly understood complication of diabetes that has serious consequences for patients’ physical functioning and daily activities. A well-developed patient-reported outcome (PRO) measure that can assess the impact of DPNP on function and that is sensitive to change would facilitate research important to patients. The purpose of the study was to develop a measure of key impacts important to patients with DPNP.

METHODS: Diabetic Peripheral Neuropathic Pain (DPNP) is a poorly understood complication of diabetes that has serious consequences for patients’ physical functioning and daily activities. A well-developed patient-reported outcome (PRO) measure that can assess the impact of DPNP on function and that is sensitive to change would facilitate research important to patients. The purpose of the study was to develop a measure of key impacts important to patients with DPNP.

RESULTS: Saturation of concepts was reached after 3 focus groups and telephone interviews with a total of 25 DPNP patients (demographics: average age 52 years old, 68% male, 60% White). The average duration of DPNP was 5 years (range 1-30 years) and the average self-reported pain score (scale 0-10) was 6.9 (range 4-10). The theoretical framework described two domains of impact: (i) Physical Functioning and Daily Functioning. Based on the results of the cognitive debriefing a 27-item, validation ready version of the measure with 4 domains (Physical Functioning-Sleep, Physical Functioning-Mobility, Daily Functioning-Sleep, Daily Functioning-Mobility-Relationships) was generated. CONCLUSIONS: The Diabetic Peripheral Neuropathic Pain Impact Measure is believed to accurately capture relevant DPNP patients’ experiences as it relates to the ability to function in real-life scenarios. The data generated from the new measure should assist clinicians in assessing key impacts in patients with DPNP, facilitate development of targeted treatments and provide a meaningful measurement of treatment effect.

PBDA5

NATIONAL IMPACT OF HEALTH CARE ACCESS ON HEALTH-RELATED QUALITY OF LIFE OF PATIENTS WITH DIABETES IN THE UNITED STATES
Tunda N, Desai VC, Berry E, Heaton PC
University of Cincinnati, Cincinnati, OH, USA

OBJECTIVES: Lack of access to healthcare for patients with diabetes has been associated with lower self-reported health-related quality of life (HRQOL), which may lead to decreased treatment satisfaction and poor health outcomes. Our objective was to examine the impact of healthcare access on HRQOL of patients with diabetes.

METHODS: The 2009 Behavioral Risk Factor Surveillance System (BRFSS), a national health telephone survey administered by the Centers for Disease Control and Prevention (CDC), was analyzed. It included 456,771 respondents on patient demographics and health-related perceptions, conditions, and behaviors. HRQOL was defined as the number of unhealthy days, a sum of physical and mental unhealthy days in the past one month. Healthcare access was defined by whether the patient had healthcare coverage, had a healthcare professional or could not see a doctor because of cost. Descriptive analysis included means, standard errors and relevant T-tests. Poisson regression was performed to measure the impact of healthcare access variables, age, race, gender, marital status and median household income on unhealthy days.

RESULTS: In 2009, from 5.2 million diabetic patients, 0.7 million (14%) did not have healthcare coverage, 0.48 million (9%) did not have healthcare professional and 1.54 million (30%) could not see a doctor due to cost. The average number of unhealthy days in a month, for diabetic patients with healthcare coverage was lower than those without (22 days versus 23 days, p-value<0.01), for those who could see a doctor due to cost was lower than those who could not (22 days versus 24 days, p-value<0.01); was the same for those with or without a healthcare professional. Regression results showed, not having healthcare coverage and healthcare professional, each significantly (p-value<0.01) increased an excess unhealthy day in diabetic patients. CONCLUSIONS: Lack of healthcare access negatively impacts HRQOL. Measures are needed to ensure adequate healthcare access in diabetic patients.

PBDA8

DO WE KNOW WHAT ARE THEY TRADING OFF? – A FEASIBILITY STUDY TO MEASURE QUALITY OF LIFE IN TAIWANESE TYPE 2 DIABETES PATIENTS BY TIME-TRADE-OFF METHOD
Huang LH1, Chen LC2, Huang YR3, Tundia N3
1Kaohsiung Medical University, Kaohsiung, Taiwan, 2University of Nottingham, Nottingham, UK, 3University of Cincinnati, Cincinnati, OH, USA

OBJECTIVES: To assess the quality of life (QoL) of Taiwanese type 2 diabetes patients, we have conducted feasibility studies applying different QoL utility scores. This study aims to study the adaptation and feasibility of time-trade-off (TTO) method for measuring QoL in Taiwanese diabetic patients.

METHODS: This cross-sectional study was conducted from June to December 2010 at nephrology