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 comorbid conditions. The objective of this study was to assess current prescription behavior, treatment compliance and reasons for non-compliance 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 primary care diabetes centers throughout Karachi. Information was collected on socio-demographic characteristics, diabetes duration and compliance to physician’s advice.

RESULTS: Overall, 81% for male subjects and 87% for females, (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, non-adherence was defined the deviation from the physician’s prescription followed up for each visit. About 45% of the subjects were taking medication for diabetes related complications. Lack of financial resources, knowledge and supportive services and fear of needle were the main reasons for non-compliance. We also found that people with low literacy levels were less likely to manage their condition effectively compared to people with higher educational level (p<0.001).

CONCLUSIONS: To manage the diabetes both physicians and patients should attempt to improve compliance, which could lead to better diabetes management. Based on the findings, a public health intervention and information campaign is needed to change behaviour in the patients with diabetes. Further, physicians should also educate patients by identifying potential risks of non-compliance and educate them accordingly.

PD84
A NOVEL APPROACH FOR NON-ADHERENCE MEASUREMENT BASED ON PRESCRIPTION DATA: THE EXAMPLE OF ORAL DIABETICS IN THE THERAPY OF TYPE-2 DIABETES MELLITUS PATIENTS

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OBJECTIVES: To quantify the influence of methodological assumptions/parameters on the results of prescription-based NA analysis based on 3-years prescription data. The objective of this study was to assess current prescription behavior, treatment compliance and reasons for non-compliance for patients with type 2 diabetes in Pakistan.

METHODS: With the help of MRPs in an interval-based approach, a NA-base scenario for 25 anti-diabetic active ingredients was calculated for each patient. In a scenario analysis, the quantitative influence of all in all 9 parameters on the MPR level were derived. The most important parameter concerned the 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 MRP based on our novel approach.

RESULTS: In the base case, the average MRP resulting from the analysed active ingredient combinations was 0.126. A total of 62.85% of patients had an MPR<80%. In the base-case scenario, the novel prescription profiles, patients were distributed as follows: 59.0% mono-medication, 12.9% Single-Drug 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. The total duration treatment of the patients was assigned to one of the categories. Comparing a base-case MRP analysis with our novel approach resulted in MRP 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 methods used 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 1-20 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: Physical Functioning and Daily Functioning. Based on the results of the cognitive debrieving a 27-item, validation ready version of the measure with 4 domains (Physical Functioning-Sleep, Physical Functioning-Mobility, Daily Functioning- Activities and Daily Functioning-Relationships) was generated. CONCLUSIONS: The Diabetic Peripheral Neuropathic Pain Impact Measure is believed to accurately capture relevant DPNP patients’ experiences as it relates to physical ability to function and to 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 324,000 respondents on pain in diabetes 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 due to 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); 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 affects HRQOL. Measures are needed to ensure adequate healthcare access in diabetic patients.

PD86
DEVELOPMENT OF THE DIABETIC PERIPHERAL NEUROPATHIC PAIN IMPACT MEASURE: A PATIENT-REPORTED OUTCOME MEASURE OF THE IMPACT OF DPNP ON FUNCTIONING

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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.

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PD87
NATIONAL IMPACT OF HEALTH CARE ACCESS ON HEALTH-RELATED QUALITY OF LIFE OF PATIENTS WITH DIABETES IN THE UNITED STATES

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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 detrimental economic and objective outcomes. The purpose of this study 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 324,000 respondents on pain in diabetes 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 due to 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<0.001); for those who could see a doctor due to cost was lower than those who could not (22 days versus 24 days, p<0.001); was the same for those with or without a healthcare professional. Regression results showed, not having healthcare coverage and healthcare professional, each significantly (p<0.01) increased an excess unhealthy day in diabetic patients. CONCLUSIONS: Lack of healthcare access negatively affects HRQOL. Measures are needed to ensure adequate healthcare access in diabetic patients.