

(95%CI: -0.11, 0.11). T2DM patients with complications had systematically higher TTO values than those without complications, with the difference being -0.10 (95%CI: -0.23, 0.03). **CONCLUSIONS:** It appears that diabetes and its complications affect patients' valuation of health states. As a result, the EQ-5D-3L health-state values based on the general population may underestimate the utility of health interventions for T2DM.

PDB37

PATIENT-REPORTED MEDICAL EXPENDITURES FOR INSULIN-TREATED DIABETES PATIENTS IN EASTERN, CENTRAL AND WESTERN REGIONS OF CHINA

Li H¹, Guan XD¹, Han S¹, Wang TS², Rao P², Shi LW¹

¹International Research Center of Medicinal Administration, Peking University, Beijing, China,

²School of Pharmaceutical Sciences, Peking University, Beijing, China

OBJECTIVES: The study aimed to investigate the utilization and expenditures of medical resources, including outpatient visits, hospitalizations, and productivity loss for insulin-treated diabetes patients. **METHODS:** A survey based on self-designed questionnaire was conducted in 7 third-grade class-A hospitals among eastern, central and western regions of China from July to September of 2012, with inclusion criteria of type 1 and type 2 diabetes patients treated with insulin. Diabetes duration and glycemic control for included patients, frequency and expenditures of outpatient visit and hospitalization, and time spending of outpatient visit were collected. Descriptive analysis of the data was performed by SPSS 19.0. **RESULTS:** 602 eligible respondents (95.0% type 2 diabetes, 48.2% male) were included, with mean age of 62.15±13.06 years, mean diabetes duration of 10.62±8.23 years, mean fasting plasma glucose of 8.05±2.89 mmol/L; mean haemoglobin A1c of 7.24±2.10%. Average frequency of outpatient visit was 14.37 times per year, and average cost per outpatient visit was 696.70 CNY. 36.3% of patients were hospitalized because of diabetes and its complications in the previous year, with the frequency of 1.36 times per year and average cost of 11461.51 CNY, resulted in annual hospitalization cost of 15587.65 CNY per inpatient. Total annual medical expenditure was estimated to be 11985.33 CNY per patient, including 10011.58 CNY for outpatient visits and 1973.75 CNY for hospitalizations. In addition, an average of 5.05 hours, including the traffic time, was spent for outpatient visit, and 3.37 more hours were needed for rural patients as compared to urban patients (8.11 hours vs 4.74 hours). **CONCLUSIONS:** In China, Diabetes consumed a great deal of medical resources and imposed a heavy burden on patients treated with insulin, especially when hospitalization needed. More attentions should be paid on diabetes prevention and management to reduce medical resource utilization and burden of diabetes.

PDB38

ASSESSMENT OF DISEASE STATE KNOWLEDGE IN DIABETIC PATIENTS OF QUETTA CITY, PAKISTAN

Iqbal Q¹, Bashir S², Ahmed T¹, Haq N¹, Iqbal J¹

¹University of Balochistan, Quetta, Pakistan, ²University of Sargodha, Sargodha, Punjab, Pakistan

OBJECTIVES: The present study aimed to assess disease knowledge of the diabetic patients in Quetta city, Pakistan. **METHODS:** A questionnaire based, cross-sectional observational study was carried out. All residence of the area (age 18 and above) were targeted. The study was conducted from July to October 2013. The questionnaire comprised of two parts. The first part was consist of demographic characteristics. The second part were consist of 15 question related to diabetes basic knowledge. Descriptive statistics were applied to summarize the data. **RESULTS:** A total of 457 registered diabetes patients were approached, and 408 patients were agreed and participated in the study. Majority of the patients (n=285, 69.9%) belonged to age group 41-60 years with almost equal in gender distribution. One hundred and sixty nine (41.4%) had primary level education and majority (n=225, 55.1%) had family history of diabetes. Majority of the respondents had knowledge about disease (98.5%) and its nature (68.4%). Only 280 patients knew about symptoms. 217 (49.3%) patients said obesity can cause diabetes, 49.3% said consumption of sweets and high calories food, 44.8% said alcohol or smoking are major reasons of having diabetes. Seventy percent of the respondents considered it as heredity in nature. Three hundred and twenty five (67.8%) considered mental stress and high blood pressure being risk factor. Majority (69.1%) considered it as treatable disease, while 64% said it require lifelong treatment. Although majority (n=344, 71.7%) of the respondents considered glucose monitoring is necessary, yet only few said regular walk or exercise are important for diabetes control. Only 38.4% considered the uncontrolled diabetes can cause complications and 34.2% believed that uncontrolled diabetes can cause death. **CONCLUSIONS:** The study concluded that although the general populations have knowledge about the diabetes but they lack vital information regarding its treatment, management and severity of the disease.

PDB39

ASSESSMENT OF KNOWLEDGE REGARDING DIABETES: A COMPARATIVE ANALYSIS OF DIABETES PATIENTS AND HEALTHY POPULATION OF QUETTA CITY, PAKISTAN

Iqbal Q¹, Ahmed T¹, Bashir S², Iqbal J¹, Razaque G¹, Jan¹, Haq N¹

¹University of Balochistan, Quetta, Pakistan, ²University of Sargodha, Sargodha, Punjab, Pakistan

OBJECTIVES: The present study was design to compare the knowledge regarding diabetes between the diabetic patients and healthy population in Quetta city, Pakistan. **METHODS:** A questionnaire based, cross-sectional observational study was carried out. All the registered diabetes patients (DP) of Bolan Medical Complex hospital and Sandman Provisional hospital were targeted and for healthy individual (HP), all residence of the area (age 18 and above) were targeted. The study was conducted from July to October 2013. The questionnaire comprised of two parts. The first part was consist of demographic characteristics. The second part were consist of 15 question related to diabetes basic knowledge. Descriptive statistics were applied to summarize the data. Mann-Whitney test was used to compare the study groups. **RESULTS:** Out of 1248 participants 623 (408:DP, 215:HI) were males with mean age of 36.9±9.9 (38.6±9.5:HP, 32.7±9.4) years, majority 462 (352:DP, 110:HI)

had primary level of education, 551 (358:HP, 193:HI) were employed. Six hundred and fifty six (431:DP, 225:HI) having family history of diabetes. The mean diabetes knowledge score was 8.2±2.1, (8.5±2.7:DP, and 8.1±2.6:HI). There is no significance different was found between the diabetes knowledge score of both the groups (i.e. diabetes patients and healthy individuals), p < 0.05. **CONCLUSIONS:** Results of the present study show that there is no significance difference between the two groups i.e. diabetes patients and healthy individuals regarding the knowledge regarding diabetes. It is important to educate both patients and healthy individuals for management and prevention of the disease.

PDB40

ASSESSMENT OF DIABETES KNOWLEDGE IN HEALTHY POPULATION OF QUETTA CITY, PAKISTAN

Iqbal Q¹, Ahmed T¹, Bashir S², Iqbal J¹, Haq N¹, Razaque G¹

¹University of Balochistan, Quetta, Pakistan, ²University of Sargodha, Sargodha, Punjab, Pakistan

OBJECTIVES: The present study was conducted to evaluate the knowledge regarding diabetic in healthy population of Quetta city, Pakistan. **METHODS:** A questionnaire based, cross-sectional observational study was carried out. All residence of the area were targeted from July to October 2013. The questionnaire comprised of two parts. The first part was consist of demographic characteristics. The second part were consist of 15 question related to diabetes basic knowledge. Descriptive statistics were applied to summarize the data. **RESULTS:** A total of 1000 general people were approached and 840 respondents were agreed and participated in the study. Majority of the respondents (72.0%) belonged to age group 18-40 years with almost equal in gender distribution. Majority (51.3%) had family history of diabetes. Majority (96.7%) had knowledge about disease and its nature (64.0%), and knew about symptoms (62.5%). Fifty four percent said obesity and (46.7%) said alcohol or smoking are major causes for diabetes. Seventy eight percent considered diabetes is as heredity. Fifty percent of participants considered mental stress and high blood pressure being risk factors for diabetes. Fifty Eight percent considered it as treatable disease, while 45.6% said it require lifelong treatment. Sixty eight percent said regular walk or exercise are important for diabetes control, 83.3% believed that diet control is important in diabetes prevention, majority (76.7%) considered the uncontrolled diabetes can cause complications and (43.3%) believed that uncontrolled diabetes can cause death. Although majority (56.9%) of the respondents considered glucose monitoring is necessary, yet only few said regular walk or exercise are important for diabetes control. Only 17.1% considered the uncontrolled diabetes can cause complications and 31.4% believed that uncontrolled diabetes can cause death. **CONCLUSIONS:** The study concluded that although the general populations have knowledge about the diabetes but they lack vital information regarding its treatment, management and severity of the disease.

DIABETES/ENDOCRINE DISORDERS – Health Care Use & Policy Studies

PDB41

THE EXPANDING ROLE OF THE PATIENT VOICE IN MEDICAL DECISION MAKING IN ASIA

Victor TW¹, Stankus AP¹, Li S²

¹Kantar Health, Princeton, NJ, USA, ²Kantar Health, Shanghai, China

OBJECTIVES: Self-reported indices of health care related attitudes and behaviors, health status, and work productivity are compared between Chinese and Japanese diabetics to illustrate the various kinds of information that can only come from the patient that is pertinent to the medical decision making process. **METHODS:** Data were obtained from the 2012 Japan (N=30,000) National Health and Wellness Survey (NHWS) and 2013 China (N=19,987) NHWS, administered on-line to representative adult samples (18+ years). Generalized linear models and Tukey's HSD procedure were used to estimate differences between respondents without diabetes (Japan n=25,338; China n = 16,816), respondents with Type 2 diabetes without complications (Japan n=929; China n=408), and respondents with Type 2 diabetes with complications (Japan n = 125; China n = 184). Respondent age, sex, and BMI served as covariates in all models. The SF-36 and the WPAI were used to measure health status and utilities and work productivity respectively. **RESULTS:** The relationship between the patient reported outcomes of mental and physical health status, level of depression, health utilities, work productivity, activity impairment, days missed from work and level of diabetic condition was consistent. Diabetic complications were associated with greater levels of health/activity/work impairment and lower health utilities (p < .0001 for all comparisons). Chinese respondents reported greater levels of impairment and lower health utilities relative to Japanese respondents (p < .0001 for all comparisons). **CONCLUSIONS:** The patient voice varies across countries, cultures, and conditions. Treating the whole patient versus treating only the presenting disease requires a shift in how health care is delivered and medical decisions are made. Patients can provide reliable and valid information regarding their health and wellness status through the use of validated methods and tools. Amplifying the patient voice and integrating it with clinical expertise may be the best way maximize the positive outcomes for the patient.

PDB42

THE IMPACT OF DRUG PRICE CONTROL POLICY FOR DIABETES MEDICATION: A LONGITUDINAL ANALYSIS IN TAIWAN

Lai CL¹, Lai MS²

¹Kainan University, Taoyuan, Taiwan, ²National Taiwan University, Taipei, Taiwan

OBJECTIVES: Medication costs accounted for 25% of total medical expenses in Taiwan. Reduction in price of drug is the major policy to control the medication costs. Diabetes drugs is a major factor contributing to high and rapidly growing prescription medication costs. This study was to examine the determinants for diabetes drug expenditures inflation in Taiwan's National Health Insurance (NHI). **METHODS:** This retrospective and longitudinal used NHI claim data to quantify the different