CONCLUSION: Given that the symptoms of type 2 diabetes take a long time to develop, even small numbers of hospitalizations are alarming. Furthermore, unlike that of type 1 diabetes, the hospitalization with type 2 diabetes was rapidly on the rise. With a continuous increase in obesity among children, the burden of type 2 diabetes is a growing public health concern.

**DIABETES/ENDOCRINE DISORDERS—\**
**Patient-Reported Outcomes**

**PDB51**

**A RESTROSPECTIVE ANALYSIS OF MEDICATIONS**
**ADHERENCE AND ASSOCIATED HEALTH CARE COST FOR THE DIABETIC PATIENTS**

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OBJECTIVE: Determine the adherence to diabetes medications in the treatment of diabetic patients and associated health care cost.

METHODS: The study sample from a large PBM claims database from January 1, 2005 through December 31, 2006. Patients were included if they had diagnosis of diabetes, received at least 1 diabetes medication and were continuously enrolled during the study period. Medication adherence rates were measured as percentage of days that the patient possessed any available diabetic drug from July 1, 2005 to July 1, 2006. Each study member was placed into 1 of 3 mutually exclusive adherence category, defined as 0 ≤ MPR < 0.5 (non-adherent group), 0.5 ≤ MPR < 0.8 (partially adherent group), 0.8 ≤ MPR ≤ 1 (adherent group). Descriptive analyses were conducted within each category to assess the patient characteristics and health care costs; Multivariate regression models were conducted to determine the impact of adherence on the health care costs controlling for confounding factors.

RESULTS: A total of 4262 patients were included. Non-adherent, partially–adherent and adherent patients accounts for 12.9%, 19.1% and 68.2% respectively. The average diabetes-related medical care costs in the 18 months post-index period decreased as the adherence level increased. The average overall medical care costs in the 18 months post-index period also decreased as the adherence level increased. The average overall health care costs of partially adherent group and adherent group are both lower than non-adherent group. After controlling for patient characteristics, comorbidities, and health care cost in the six months pre-index period the multivariate regression showed low drug adherence level was significant predictors of both higher diabetes-related medical care costs (p < 0.0001) and higher overall total medical care cost costs (p < 0.001).

CONCLUSION: Non-adherent diabetic patients have higher diabetes-related and overall medical care cost than partially adherent diabetic patients and adherent diabetic patients. Investment in disease management programs to promote adherence with medication regimen may needed for these non-adherent diabetic patients.

**PDB52**

**SYSTEMATIC REVIEW OF ADHERENCE, COMPLIANCE AND QUALITY OF LIFE IN TYPE 2 DIABETES PATIENTS**

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To evaluate the quality of life as an outcome of adherence and compliance in type 2 diabetes and to predict the barriers and strategies to improve adherence. Data were obtained by search-