PDB44

RELATIONSHIP BETWEEN SPENDING ON DIABETES DRUGS AND OCCURRENCE OF RISKS ASSOCIATED WITH TYPE 2 DIABETES IN ENGLISH GENERAL PRACTICES

Spaid VA, Murphy EM, Beaumont A

Cogra, London, UK

OBJECTIVES: To correlate spending on diabetes drug prescriptions in English general practices with occurrence of risks associated with type 2 diabetes. METHODS: Data from the HSCIC showing number of prescriptions, by drug, issued in England in 2013 and 2014 were identified through the HSCIC’s QOF data. The median age at follow-up was 66 years (range 41-89).RESULTS: 81,533 patients were identified: 41,637 without diabetes, 20,916 with diabetes, 19,221 with type 2 diabetes (T2D), and 7,759 with type 1 diabetes (T1D). The average number of medications used per admission was 13 and 11 in patients 60 and under 60, respectively. The T2D population had been using insulin for a median of 2.4 years and added/switched to insulin in 47% of the total T2D population. The average number of insulin prescriptions was 31 and 21 in the T2D elderly patients, in Beijing and Tianjin, China. METHODS: A pooled cross-sectional analysis was performed using hospitalization records in Beijing and Tianjin from China Health Insurance Research Association Database of year 2010, 2011 and 2012. Hospitalizations with T2D were identified using ICD-10 codes. Descriptive statistics were used to analyze hospitalization costs and medication usage. RESULTS: A total of 810 T2D with CKD hospitalizations were identified, accounting for 20.1% of the total T2D hospitalizations. The mean age (±SD) showed on the records were 62.42 (±11.78) years, with 16.15±8.92 days length of stay. The direct cost per admission was 10,155.68 (£7,144.79), with 77.5% reimbursed by basic medical insurance. Medication cost accounted for 47.55% of the total medication costs. Averaged 15+ drugs were prescribed per admission. For T2D treatment choices, 13.33% patients used oral diabetic drugs (OAD) alone, and 66.75% used OAD and insulin combination. Carbohydrates and metformin were the two most frequently used OAD in all treatment choices. For non-antidiabetic medications, the two most frequently used drugs were aspirin and mebendazole. CONCLUSIONS: Direct medical costs were not significantly different between the two locations. This study showed that total cost in T2D patients with CKD per hospitalization was considerable, and their medicine usage pattern was complex in Beijing and Tianjin in China. More attention should be paid to the rational use of medication in such population.

PDB45

COST OF MEDICATION NONADHERENCE IN PATIENTS WITH DIABETES MELLITUS

Nadendla R

Chulalongkorn Institute of Pharmacoeconomics Science, Guntur, India

OBJECTIVES: To evaluate the longitudinal relationship between the likelihood of medication non-adherence and the daily medication costs in patients with diabetes mellitus. METHODS: The prospective study was conducted over a period of six months in a South Indian Village. Adherence to treatment has been assessed during a personal interview with each patient by using questionnaire. Medication adherence was assessed by using Morisky medication adherence scale (MMAS-8). RESULTS: A total of 658 patients were diagnosed with Type-2 diabetes mellitus among them 87% (n=572) of the patients were prescribed with oral hypoglycemic agents for more than a year were selected as study population. The statistical significant association with socio demographic and adherence rate to antidiabetic therapy indicated that higher prevalence of adherence among uneducated (41.22%) elderly (32.82%) women (42.26%) unemployed (29.95%). The most common causes for nonadherence to taking medications were lack of knowledge (35.25%), unaffordability (6%) and project of untoward reactions (15.62%). Feeling uneducated (41.22%) elderly (32.82%) women (42.26%) unemployed (29.95%). The correlations between spend on insulin prescriptions and number of patients with each individual diabetes risk was always higher than the correlation between spend on all diabetes drugs and number of patients with each individual risk. The same was true when correlating the total number of prescriptions with occurrence of diabetes associated risks. Interestingly, both of these trends remained true when controlling for number of patients diagnosed with diabetes using partial correlations. CONCLUSIONS: As the occurrence of risks associated with diabetes increase, the spend on diabetes prescriptions is likely to increase. This is not only because more prescriptions are written but also because the likelihood of insulin, the most expensive type of diabetes drugs, being prescribed increases.

PDB46

DIABETES COST AND MEDICATION USAGE IN ELDERLY TYPE 2 DIABETIC PATIENTS UNDER HOSPITALIZATION AMONG INSURED URBAN POPULATION IN CHINA

Liu Qi1, Liu M1, Zhang P, Chu Y1, Li Z2, WANG D1

1Beijing Brainpower Pharma Consulting Co. Ltd, Beijing, China; 2China Health Insurance Research Association, Beijing, China.

OBJECTIVES: Elderly population is growing and so is the prevalence of diabetes among them. The present study was to explore the diabetes medication cost and medication usage pattern in hospitalized elderly patients with type 2 diabetes (T2D) among insured urban population in China. METHODS: A pooled cross-sectional analysis was performed using hospitalization records in Beijing and Tianjin from China Health Insurance Research Association Database of year 2010, 2011 and 2012. Hospitalizations with T2D were identified using ICD-10 codes. Descriptive statistics were used to analyze hospitalization costs and medication usage. RESULTS: A total of 11,157 T2D hospitalization records from 13 cities were analyzed, with 56.77% are elderly patients, and 32% of total patients have at least one comorbidity. The mean length of stay (LOS) was 55.4 days for elderly patients, and 57 days for patients 60 and under 60. The average direct cost per hospitalization and reimbursement ratio in elderly patients were $9,036.74 (+7675.74) and 77.34%, compared to $8084.34 (+5304.76) and 72.11% in patients under 60, respectively. On average, LOS was found 1 day longer and hospitalization costs were found $1120 higher in T2D patients with comorbidities compared to those without. The average number of medications used per admission was 13 and 11 in patients 60 and under 60, respectively. In T2D population, 15% patients used combination of antidiabetic drugs (OAD) and insulin. Carbohydrates and metformin were the two most frequently used OAD in all treatment choices. For non-antidiabetic medications, the two most frequently used drugs were aspirin and mebendazole. CONCLUSIONS: Direct medical costs were significantly different between the two locations. This study showed that total cost in T2D patients with CKD per hospitalization was considerable, and their medicine usage pattern was complex in Beijing and Tianjin in China. More attention should be paid to the rational use of medication in such population.