probability of prescribing brand name antidiabetics. CONCLUSIONS: DM diagnosis implies a relevant economic impact, has a high cost to society. The price regulation in 2006 to 2009 was able to generate the profit and decreasing the share of pharma expenditure in total health expenditure while increasing access new to drugs, and keeping the copayments low.

OLD PATIENTS WITH NEWLY DIAGNOSED TYPE 2 DIABETES (T2DM) HAVE MORE DELAYED TREATMENT WITH ORAL ANTIHYPERGLYCEMIC AGENTS COMPARED WITH YOUNGER PATIENTS

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OBJECTIVES: This study compared older (≥ 65 yrs) and younger patients with newly diagnosed T2DM, and evaluated factors associated with oral antihyperglycemic agent (OAH) initiation. METHODS: This retrospective cohort study used U.S. General Electric (GE) Centricity electronic medical record database. Patients aged ≥60 yrs with newly-diagnosed T2DM (January-2003 to December-2005) were included. There was no diabetes diagnosis or treatment within 2 years prior to the first recorded T2DM diagnosis. Medical records 1 year prior to (baseline) and 2 years after (follow-up) diagnosis were extracted. OAH initiation was estimated based on the first OAH prescription during follow-up. Multivariable Cox proportional hazards regression model was fitted. Untreated patients were censored at complete 2 years follow-up.

RESULTS: Among 10,760 newly diagnosed T2DM patients, 55% were female. Mean age at T2DM diagnosis was 61.3 (± 12.5), with 4,617 (43%) 65 yrs. At baseline, older patients had lower HbA1c (6.7 ± 0.2%), with only 38% vs. 32% attaining HbA1c, < 7% goal), lower fasting blood glucose (117.9 vs. 132.8 mg/dl) and lower BMI (30.6 vs. 35.2), higher rates of acute myocardial infarction (MI) (2.1% vs. 0.9%), heart failure (5.1% vs. 1.8%), stroke (3.1% vs. 0.8%), and renal dysfunction (4.6% vs. 3.4%), and diabetes medication (all p-values < 0.05). Within 2 years after T2DM diagnosis, 56% older and 45.5 younger patients (P < 0.001) had not received OAH. Older patients were less likely to be treated than younger patients (adjusted hazard ratio 0.84, p < 0.001). Additionally, patients with baseline MI or renal disease were less likely to be treated (p < 0.05). Higher BMI or HbA1c, at baseline, and heart failure, initiating antihypertensive or lipid lowering drugs after T2DM diagnosis were factors associated with increased likelihood of OAH treatment (p < 0.05). CONCLUSIONS: Older patients with newly diagnosed T2DM had milder hyperglycemia but more comorbidities, and experienced more delayed OAH therapy than younger patients.

EVALUATION OF SITAGLIPTIN DOSING AMONG RENAL IMPAIRED TYPE 2 DIABETES MELLITUS PATIENTS

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OBJECTIVES: To evaluate the dosing of sitagliptin for type 2 diabetes mellitus (T2DM) patients with renal impairment. METHODS: This was a retrospective cross-sectional analysis using the General Electric Electronic Medical Records. The study population (N = 1,539) was patients with T2DM and renal dysfunction (defined using the Current Cerner Clinical Criteria) who were prescribed sitagliptin between January 1, 2006 and June 30, 2008. Based on the label, 100mg of sitagliptin is the recommended dose for patients with normal or mild renal impairment (CrCl > 60 ml/min). 50mg for patients with moderate renal impairment (50 > CrCl ≥ 30) and 25mg for severe or end-stage renal disease (CrCl < 30). Baseline serum of renal impairment was estimated using calculated GFR values using the 4-point Modification of Dieting in Renal Disease (MDRD) formula. Patients with GFR level ≥ 60 were moderate cases, 30 to < 60 were moderate cases, 15 to < 30 were severe cases, and <15 or patients on dialysis had ESRD. Univariate analysis was done on age, gender, race, US region, payment source, comorbidities and Charlson-comorbidity index to identify factors that may be associated with inappropriate dosing. RESULTS: Of the 1,539 renally impaired patients with T2DM who received sitagliptin, 804 (52%) had moderate renal impairment and 158 (11%) had severe renal impairment or ESRD. Two-thirds of all moderate to severe and ESRD renally impaired patients had initial sitagliptin prescriptions that were higher-than-recommended doses. At 12-month follow-up, 87% of patients, whose initial prescription was for a higher-than-recommended-dose of sitagliptin, continued to be on the inappropriate higher dose. Univariate analysis showed there were no significant differences in dosing by age, gender, race, US region, insurance type or comorbidities. CONCLUSIONS: Indicant of patient characteristics, 2/3s of the population of sitagliptin users recommended a lower dose due to renal impairment, were found to be inappropriate dosed higher-than-recommended. This inappropriate dosing was not corrected during a year-long follow-up.

PETITIONABLY PREVENTABLE HOSPITALIZATIONS FOR DIABETES COMPLICATIONS, CARE ORGANIZATION AND CONTINUITY OF CARE

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OBJECTIVES: Understanding affects of care organization and continuity of care on potentially preventable hospitalizations for diabetes complications (DC) is important for policy development and outcomes management. We determined DC rates among Medicaid beneficiaries and assessed associations between care organization and DC. METHODS: A retrospective cohort analysis of Indiana Medicaid claims, enrollment, and encounter data was conducted. Sample inclusion criteria were ≥ 18 yrs, diabetes based on ICD-9 codes or NDC codes for diabetes specific medications, and continuous eligibility were a nursing home stay at least 28 days. DCs were identified based on AHRQ diabetes prevention quality indicators for short-term complications, uncontrolled diabetes, long-term complications and amputations. Each individual was placed in one of four groups based on whether continuously enrolled in Fee for Service (FFS), Care Management (CM), Managed care (MC) or whether switches between subprograms occurred in 2008. Persons enrolled in CM entered through disability determination, while other groups had no known disability indication. Logistic regression associated assessment between Medicaid subprogram and DC adjusting for age, gender, ethnicity, marital status, diabetes type, mental illness, hypertension, coronary artery disease, foot specific conditions and Charlson comorbidity index. RESULTS: A sample of 47,443 persons, with mean age of 53 years, 68% female and, 77% white was identified. Overall, 1,514 hospitalizations for DC (95% CI: 1,493 – 1,535) with a rate of 31.6 per 1,000 individual-daystrates were found. Although no significant difference was seen between CM or MC as compared to FFS, DCs were more likely in individuals who switched subprograms than those in FFS (Odds ratio = 1.6, 95% C.I.: 1.4 – 1.9, p<0.001). CONCLUSIONS: Transitions between Medicaid subprograms was associated with greater likelihood of diabetes complication hospitalization. CM may reduce adverse outcomes for those persons with medical disability. Continuity of care may be essential.

QUALITY OF CARE FOR DIABETICS IN KARACHI PAKISTAN

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BACKGROUND AND OBJECTIVES: Diabetes is a chronic, potentially disabling and life-threatening disease. The International Diabetes Federation estimates that more than 245 million people around the world are living with diabetes. Around 3.2 million deaths are attributable to complication of diabetes every year; six deaths every minute. Pakistan is in the top ten countries in the number of sufferers from diabetes. This disease requires continuing proper medical care and patient self-management education to prevent complications. Current study aims to observe the current standard in the management of diabetic at a private tertiary care hospital in Karachi, Pakistan. METHODS: A retrospective health record review was done at a private tertiary care hospital in Karachi, Pakistan. Health records for all the patients with diabetes, who visited general physician or family physician during the months of April and May 2007, were included in this study. Two indicators including foot examination and advice for HbA1C diagnostic test for this cross sectional survey were identified. Data were entered using Microsoft Excel. Total 350 health records were reviewed and of these, 40% were males and 60 females. Majority of the diabetics (80%) were over the age of 50 years. We found that only 40% of the patients were physically checked for foot examination and advised for HbA1C lab investigation by their general physician or family physician. About 44% were not either checked for foot examination or advised for HbA1C. CONCLUSIONS: Diabetes is a devastating chronic disease and can result in death very early if not managed properly. Current study suggest that adherence to the current screening guidelines was inadequate in this practice setting. Adherence to current diabetes management guidelines and diabetes care quality improvement initiatives can result in significant improvements in the provision and documentation of diabetes care.

TREATMENT OF TYPE 2 DIABETES VS. CLINICAL GUIDELINES

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OBJECTIVES: Determined how treatment of type 2 diabetes with drug therapy mirrors the accepted published clinical guidelines (for example those provided by the American Association of Clinical Endocrinologists). This included both initial drug therapy as well as therapies added over time. METHODS: Catalina Health Resource receives data from a nationally representative sample of pharmacy chains, representing approximately 40% of all national retail prescription volume, and comprised of over 130 million unique patients. Data are captured daily from the pharmacies, are fully HIPAA compliant, longitudinal, and not projected. Patient cohort included all patients who were prescribed type 2 diabetes treatment between January-March 2008. Look back period was 180 days and look-forward period was through December 2008. RESULTS: Patient cohort consisted of 77,302 new type 2 diabetes patients. Metformin is the recommended initial therapy, but only 61% of patients were prescribed it as their initial therapy. The remaining patients began on a sulfonylurea (23%) or a thiazolidinedione (15%). 62% of patients who started on metformin did not add other drugs during the study, as compared to 48% of patients who started therapy on an SFU and 43% of patients who started therapy on a TZD. 1% of patients who started on metformin added/switched to basal insulin as their second drug, mean time to switch was 547 days. 3% of patients who started on an SFU added/switched to basal insulin as their second drug, mean time to switch was 541 days. CONCLUSIONS: Nearly 40% of type 2 diabetes patients did not initiate therapy in line with published guidelines. Patients who initiated therapy on metformin also had a lower rate of switching to/adding basal insulin as their second drug than patients who initiated therapy on an SFU.