costs. In this model, prescription non-procurement was more likely to be reported in the Medicare-only population (OR: 1.47; 95% CI 1.46–1.48) and in the Medicare plus Medicaid population (OR: 1.11; 95% CI 1.10–1.12) as compared to respondents with Medicare plus private insurance coverage. **CONCLUSIONS:** Significantly different rates of persons who forego filling a prescription for cost reasons were observed among Medicare beneficiaries. More vulnerable groups of seniors were identified. Dual eligible Medicare/Medicaid enrollees and those with Medicare alone are more likely to restrict medication procurement due to cost.

AD2

MEDICATION TREATMENT PERSISTENCE OF OVERACTIVE BLADDER/URINARY INCONTINENCE PATIENTS IN A CALIFORNIA MEDICAID PROGRAM AND THE BENEFIT OF THEIR REFILL ADHERENCE ON URINARY TRACK INFECTION

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OBJECTIVES: 1) To explore 1-year persistence pattern of Overactive Bladder/Urinary Incontinence (OAB/UI) medication treatment; 2) to discover factors associated with persistence; and 3) to investigate the benefit of refill adherence on urinary track infection (UTI). **METHODS:** Retrospective analyses on continuously enrolled adult patients diagnosed with OAB/UI and received at least one OAB/UI medication from July 1999 to April 2001 (with 6-month run-in period and 1-year follow-up period) are employed. Time to discontinuity, defined as the period from the index date to the discontinuity date (when any medication-uncovered interval is longer than 30 days), is used to describe the persistence pattern of patients. Adherence is measured by medication possession ratio (MPR). A Cox Proportional Hazard model is applied to reveal risk factors of non-persistence. A logistic regression is used to examine the relationship of those same factors with refill adherence and to assess the effect of adherence on UTI incidence rate. **RESULTS:** Of 6518 eligible patients, 26.8% have only 1 prescription. 5751 patients (88.2%) discontinue within the following year, among which, 92.2% fail to continue treatment after 183 days. Only 952 patients (14.6%) exhibit good adherence (MPR >= 0.8). The mean MPR of the whole cohort is 0.39 and the median is 0.24. Significant predictors of higher persistence include Caucasians, 75 years old or above, prior medication use, and initiating extended-release form of drug. Patients with prior prescription of antidepressant or diagnosis of depression show lower persistence. Similar results are found for adherence. Logistic regression indicates that good refill adherence reduces the risk of being diagnosed with UTI by 33% in the post-treatment period (P = 0.0008, OR = 0.672). **CONCLUSIONS:** Both persistence of OAB/UI medication and refill adherence

are low, suggesting the need to develop effective interventions in OAB/UI and UTI.

AD3

PREDICTIVE MODEL OF MEDICATION ADHERENCE IN CARDIOVASCULAR DISEASE

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OBJECTIVES: Medication non-compliance has been a growing concern for healthcare management and can result in progression of cardiovascular disease (CV) and an increase in economic burden. To develop models to predict the risk for future medication non-compliance among patients with hypertension and hyperlipidemia. **METHODS:** Two predictive models were constructed using pharmacy and medical claims from 2380 patients newly treated with anti-hypertensive medications and 3387 patients newly treated with statins in a managed care setting. The outcomes of interest were the future medication compliance rates for both disease states over a one-year follow-up period. The potential predictors of compliance included patient characteristics such as age, gender, type of insurance plan, Chronic Disease Score (CDS), presence of select comorbidities, copayments, total medication burden, hospital encounters, outpatient physician encounters, and initial compliance (0–3 months of therapy immediately before the follow-up period). Linear regression models were applied to construct the models. Each population was randomly split by a 2 to 1 ratio to facilitate spilt-sample validation of the models. **RESULTS:** Based on the hypertension model, age, gender, total co-payments, total medication burden, and initial compliance showed significant relationship with compliance (R2 = 0.45). Based on the hyperlipidemic model, age, gender, presence of a second CV condition (e.g. angina), outpatient physician encounters, co-payments at drug initiation, total medication burden, and initial compliance demonstrated significant relationship with compliance (R2 = 0.43). In both populations, initial compliance was the strongest predictor of sustained compliance. **CONCLUSION:** These models can serve as a useful tool to guide providers in promoting medication compliance. Both models suggest that assisting the patient to establish compliant behavior within the first three months of a new treatment regimen can significantly influence sustained medication adherence with CV medications.

AD4

A TIME-VARYING SURVIVAL MODEL FOR THE ASSOCIATION OF ADHERENCE WITH HMG-COA INHIBITORS TO THE RISK OF ADVERSE EVENTS

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