0.001). Controlling for covariates, HR55 patients averaged $22,502 in paid health care services over 2 years compared to $15,645 for HR patients and $11,423 for LR patients ($p < 0.001$). CV costs represented about 46% of costs for the HR55 group, 41% for the HR group, and 31% for the LR group. **CONCLUSION:** This study demonstrates the high burden of illness associated with CVD, especially for patients within the high risk group aged 55 and over.

PCV48

IMPACT OF MEDICAID PREFERRED DRUG LISTS ON THERAPEUTIC ADHERENCE

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OBJECTIVES: To estimate rates of non-adherence for statins following implementation of a preferred drug list (PDL). **METHODS:** In a retrospective cohort study, a difference-in-difference-in-difference approach was used to estimate the impact of a PDL on statin utilization in an Alabama Medicaid population. The PDL restricted access to certain branded medications and imposed a monthly prescription limit. The use of restricted drugs was compared with the use of unrestricted drugs in the months before and after the PDL in North Carolina (where there were no such restrictions) and Alabama. Pharmacy data from 2001 to 2005 were used to examine the effect of the Alabama PDL implemented in 2004. **RESULTS:** Following the PDL in Alabama, Medicaid beneficiaries treated with statins had an 82% higher relative odds of becoming non-adherent with statin therapy compared with North Carolina and with pre-PDL Alabama [odds ratio (OR) 1.82, 95% CI 1.57, 2.11]. Furthermore, patients taking a restricted statin were more likely to be non-adherent than unrestricted patients (OR 1.42, 95% CI 1.12, 1.80). In addition, among Medicaid beneficiaries taking a restricted statin, people aged 65 years or older were more likely to be non-adherent than their younger counterparts after the PDL (OR 1.33, 95% CI 1.02, 1.73). Fifty-one per cent of patients in the Alabama sample were non-adherent with statin therapy after the PDL, compared with 39% before. Non-adherence was 36% in North Carolina in both periods. **CONCLUSION:** The management of heart disease and high cholesterol are important challenges, especially for low-income patients. Policy makers should be aware that access restrictions can have adverse consequences for patient adherence.

PCV49

DEVELOPMENT OF AN INTERACTIVE MODEL TO PREDICT LOW DENSITY LIPOPROTEIN CHOLESTEROL (LDL) REDUCTION AND LDL GOAL ATTAINMENT ASSOCIATED WITH STATIN USE IN ROUTINE CLINICAL PRACTICE

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OBJECTIVES: To develop an evidence-based, real world data driven interactive model to predict LDL reduction and National Cholesterol Education Program (NCEP) LDL goal attainment in patients receiving statin monotherapy. **METHODS:** An interactive model was developed using data from patients receiving statins between January 1, 2001 and December 1, 2005 from two large Southeastern US health plans' administrative claims with integrated lab results data. Multivariate OLS regression was used to predict the percent change in LDL associated with different doses of statin monotherapies for various patient characteristics such as age, gender, NCEP risk factors, presence of coronary heart disease (CHD) /CHD risk equivalents, and baseline lipid values. Each patient was assigned a NCEP risk classification and corresponding LDL goal, and the patient's probability of reaching goal was calculated by simulating a distribution of the expected percent change and its 95%CI obtained from the regression. **RESULTS:** A total of 33,706 patients were used to build the model. The cohort had a mean age of 54(+10) years and was 51% male. A total of 41% of patients were classified as low, 22% as moderate, 30% as high, and 7% as very high risk based on NCEP criteria. LDL reduction associated with atorvastatin 10–80 mg, rosuvastatin 5–40 mg and simvastatin 10–80 mg ranged from 35–38%, 31–39% and 24–34%, respectively. The multivariate regression indicated that NCEP risk status and baseline LDL values were significantly associated with higher reduction in LDL ($p < 0.05$), independent of type and dose of statin monotherapy. **CONCLUSION:** Real world, data driven interactive models may help decision makers identify patients that are ideal candidates for cost-effective statin prescribing that results in substantial cost savings while improving health outcomes. Models such as this will allow clinicians, health plan administrators and patients to maximize the economic benefit of marketplace changes such as generic simvastatin availability in a clinically appropriate fashion.

PCV51

PROCEDURAL MIX AND VOLUME DURING THE FIRST YEAR OF OWNERSHIP OF A COMPUTED TOMOGRAPHY ANGIOGRAPHY SCANNER: EVIDENCE FROM A LARGE CARDIOLOGY PRACTICE

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OBJECTIVES: The incorporation of computed tomography angiography (CTA) scanners into cardiology practices to provide optimal patient care is increasing. However, little is known about how these scanners are being used in these practice settings; therefore, the objective of this study was to assess the real world CTA procedural mix and volume data from a large cardiovascular practice. **METHODS:** Data for a one year time period following purchase of a CTA scanner were abstracted from a moderate size practice consisting of ten cardiologists. A descriptive analysis was conducted to determine the CTA procedural mix and volume for each of the 12 months that the practice has owned the CTA scanner. The mix and volume were charted over time and the average daily procedural volume and mix was quantified. **RESULTS:** During the first month of ownership, the practice performed a total of 6 chest studies on the CTA scanner. However, by the second month of ownership, the total volume of scans increased to 169 (124 chest, 11 coronary artery calcium screens, 7 head, 10 neck, 7 abdomen, and 10 legs). The volume of scans remained consistent for months 3 through 12 with an average monthly volume of 298 procedures (range 186–384). Assuming an average of 20 operating days/month, the average daily procedural volume following the first month of ownership was 14 procedures per day, broken out as follows: chest (7, range 5.6–8.6); coronary artery calcium screen (2, range 0.6–5); head (0.7, range 0.4–1.3), neck (0.8, range 0.5–1.4); abdomen (0.6, range 0.4–0.9); pelvis (0.04, range 0–0.2); legs (0.4, range 0–0.7); abdomen with run-off (0.5, range 0–0.9). **CONCLUSION:** Following purchase of a CTA scanner, a cardiology practice may perform only a few procedures during the first month of ownership; however, the procedural volume and mix substantially increases during the second month and remains consistent thereafter.