enrollment after the index date. Medication possession ratio (MPR) was calculated as the ratio of total days supply of statins to the total days during the first year after the index date (initial use period). Statin noncompliance was defined as having a MPR less than 80%. The outcome was hospitalization during the year following the initial use period. Association of statin noncompliance in the initial use period to subsequent hospitalization was examined by multiple logistic regression, controlling for age, gender, region, comorbidity, prior hospital admission and number of drug therapeutic classes in the initial use period.

RESULTS: A total of 3063 subjects met the inclusion criteria and were included in the analysis. A total of 1170 (38.2%) had a MPR less than 80% in the initial use period. Compared with patients who were compliant to statins, noncompliant patients were about 40% more likely to have a subsequent hospitalization (OR: 1.37; 95% CI, 1.13–1.65). Other factors associated with significantly higher risk of subsequent hospitalization included female gender, older age, higher Charlson comorbidity index score, higher number of drug therapeutic classes, and prior hospitalization in the use period. CONCLUSIONS: Statin noncompliance in the year after CHD hospitalization was common among new statin users and associated with higher risk of subsequent hospitalization. These findings suggest that interventions to improve compliance could reduce risk for hospitalization.

PCV54

DETERMINANTS OF TREATMENT PERSISTENCE IN A GERMAN HYPERTENSIVE POPULATION
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OBJECTIVE: To identify key drivers of non-persistence on therapy, using multivariate regression techniques, based on IMS Disease Analyzer Germany (DA) data. METHODS: DA is a longitudinal patient database containing de-identified patient records collected from 400 practices (290 GPs and 110 Internal Specialists) treating currently about 1.3 million patients. We identified a cohort of hypertensive patients being prescribed valsartan, metoprolol, ramipril, enalapril, lisonopril, amlodipine or hydrochlorothiazide (HCTZ), within the period 2003–2004. Patients had at least 12 months of data prior to, and following their index date (date of first prescription of the study drug within the window). History of hypertension was defined as the difference between diagnosis date and index date. Patients who start on monotherapy of study drugs and those who start on combination therapy involving at least one of the study drugs were analyzed separately. Medication persistence was defined as the total time on a drug, from initiation of therapy to the end of the last supplied prescription for that drug without intervening discontinuation. RESULTS: A total of 42,991 patients were analysed, of whom 61.7% discontinued study medication within 12 months post-index. Cox-regression showed that heart failure (Hazard Rate to discontinue therapy; HR = 1.04), renal disease (HR = 1.072), and not being treated with valsartan (HR = 1.07 to 1.359) independently and significantly increased the probability of being non-persistent. Older age (HR = 0.998 per year), male gender (HR = 0.948), >6 mo history of hypertension (HR = 0.87), dyslipidemia (HR = 0.96), recent stroke (HR = 0.891), and receiving combination therapy (HR = 0.92) were significantly associated with improved persistence. CONCLUSION: Different demographic and clinical factors are independently associated with persistence to antihypertensive therapy. Patients on valsartan were 7 to 36% more likely to persist compared to patients taking other frequently used antihypertensive medications. Considering such factors is important to identify patients most likely to discontinue therapy and to avoid achieving suboptimal therapeutic outcomes.

PCV55

ADHERENCE MEASURES: SO MANY TO CHOOSE FROM, WHAT IS THE DIFFERENCE?
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OBJECTIVES: To compare several adherence metrics across different therapeutic conditions, which might complicate these associations. METHODS: Plan participants dispensed lipid lowering, antihypertensive, or selective serotonin reuptake inhibitor between January 1, and June 30, 2004, had their same class prescriptions extracted for six months before and one year after their first prescription from a large deidentified US prescription database. Lipid-lowering (n = 102,067), antihypertensive (n = 138,333), and SSRIs (n = 99,439) plan participants without a same-class prescription in the pre-period had: number of prescriptions—prescription count adjusting 3–1 for mail-retail; persistent period—first minus last fill date; length of exposure—persistent period plus days supply on last prescription; total days—sum of all days supply; unique days—sum of days with exposure to drug; medication possession ratio—sum of days supply divided by length of exposure (variable) or study period (fixed); proportion of unique days—sum of days with exposure divided by length of exposure (variable) or study period (fixed); and continuous days—days spanned before a break in therapy calculated over the post-period. Results for these adherence metrics were divided into equal parts for comparisons. RESULTS: The measures were grouped into: 1) MPR variable and PUD variable, 2) unique days 3) MPR fixed, PUD fixed, total days, length of exposure, and number of prescriptions; 4) persistent period; 5) continuous days. Differences among the groups started within the first 30 days, with group 1 having values less than 1 percent and the continuous group having more than 20%. Groups 1 and 2 remained lower than the other groups ending at about 50% while the others ended at about 70%. CONCLUSIONS: Differences in how adherence is calculated need to be considered when estimating benefits. Other metrics that account for dose changes, concomitancy, and other complex regimens may need further exploration.

PCV56

PERSISTENCE WITH NEWLY-INITIATED EXTENDED-RELEASE NIACIN VERSUS OTHER LIPID MODIFYING DRUG CLASSES IN CLINICAL PRACTICE
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OBJECTIVE: Niacin is highly effective in raising HDL-C, while lowering LDL-C and triglycerides. However, niacin induced cutaneous flushing may limit patient acceptance. We compared the persistency with newly-initiated ER niacin versus other lipid modifying drug (LMD) classes in recent clinical practice. METHODS: Administrative claims from the Ingenix Lab/Rx DatabaseTM were used to identify patients aged ≥20 years who were new users (i.e. no prescription from the same LMD class in the pervious 1-year) of statins, ER niacin, fibrates, bile acid sequestrants (BAS), or ezetimibe between January 1, 2001 and June 30, 2003 and were continuously enrolled for 1 year after LMD initiation. The proportion of days covered (PDC) with each LMD class was calculated in each quarter (1Q–4Q) and over the 1-year period after therapy initiation. Patients were defined as persistent if PDC ≥ 80%. Generalized linear models