OBJECTIVES: To compare antihypertensive prescription patterns by patient race in US ambulatory settings. To determine factors affecting the recipient of each class of antihypertensive regimen specific to racial groups. METHODS: All patient-physician encounters with primary diagnosis indicating essential hypertension (ICD-9-CM codes 401.9 and 401.3) and patient age 18 years and older from National Ambulatory Medical Care Survey (NAMCS) for the years 2006–2010 are analyzed. Weighted univariate and bivariate analyses were performed to examine demographic and clinical characteristics in general and between the racial/ethnic groups. Multivariate logistic regression models were performed to investigate the adjusted likelihood of receiving each class of antihypertensive regimens by different racial groups, controlling for potential confounders.

RESULTS: A total of 59,476 million outpatient visits were included from 2006–2010 among African Americans and 266,676 visits were included from other racial/ethnic groups. Antihypertensive prescription rates by race (African Americans vs. Caucasians) were 23.1% vs. 20.3% (diuretics), 21.9% vs. 25.9% (BBS), 21.2% vs. 26.5% (ACEIs), 18.5% vs. 16.7% (CCBs), 14.5% vs. 14.8% (Angiotensin II Receptor Blockers, ARBs), 6.6% vs. 5.9% (Anti-Adrenergic agents), and 47.2% vs. 45.2% (combination regimens). Weighted logistic regression analyses determined that African Americans were more likely to receive diuretics (OR = 1.396, P < 0.001), Calcium Channel Blockers (CCBs) (OR = 1.409, P < 0.001), Anti-Adrenergic agents (OR = 1.267, P < 0.007), fixed-dose combinations (OR = 1.273, P = 0.0027), and multiple-pill regimens (OR = 1.184, P = 0.0048) and less likely to receive ACEIs (OR = 0.836, P = 0.0088), BBS (OR = 0.73, P < 0.001) than Caucasians. Factors affecting the likelihood of receiving different classes of antihypertensive agents include patient age, gender, co-morbid conditions, insurance-status, and health education profile.

CONCLUSIONS: In US Ambulatory Care Settings, African American patients received different antihypertensives and were more similar to their Caucasian counterparts. Further studies are needed to disentangle the potential effects from health insurance and utilization patterns on the racial variations in antihypertensive pharmacotherapy.

OBJECTIVES: Assess statin dosing patterns and lipid levels among UK high-risk vascular disease (HRVD) patients. METHODS: Patients with HRVD, including acute coronary syndrome (ACS), cerebrovascular arterial disease, peripheral arterial disease, and diabetes were included from regional hospital and community care from 1 January 2008 to 31 January 2011, were identified from the Clinical Practice Research Datalink with Hospital Episode Statistics data. Statin doses were assessed from the first prescription on or after the index date until the last date of exposure prior to a gap of ≥30 days. RESULTS: Of 119,267 HRVD patients with ≥6-month follow-up, 59.8% of patients had ≥30% used statin monotherapy (7.8% used high-density lipoprotein cholesterol, plus ezetimibe, niacin, fibrates, or bile acid sequestrants), and 35.3% had no recorded lipid-altering therapy. The usage patterns of statins and other lipid-altering drugs changed little during the rest of the 24-month follow-up period. The mean (median) MPR was 0.61 (0.60), 0.62 (0.62), and 0.82/0.94, respectively, among HRVD patients who used a statin with 76.9%, 74.8%, and 71.3% of patients adherent (MPR≥80%) to their statin therapy. Median time to discontinuation of the index statin was 523 days during the 24-month follow-up period.

CONCLUSIONS: Close to two-thirds of HRVD patients used statin or other lipid-altering drugs during the 24-month follow-up period. Statin adherence and persistence were high among patients with HRVD in the UK.

OBJECTIVES: Treatment with Angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs) forms the first line of therapy in hypertensive high-risk vascular disease (HRVD). This study examined the factors associated with prescribing of ACE inhibitors/ARBs in nationally representative outpatient visits by hypertensive diabetic patients. METHODS: The 2010 National Ambulatory Medical Care Survey (NAMCS) and outpatient department of National Hospital Ambulatory Medical Care Survey (NHAMCS) database were used to conduct a retrospective cross-sectional study on visits by hypertensive diabetic patients (age ≥18 years). Bivariate chi square analysis and multivariable logistic regression were performed to evaluate the factors associated with prescribing of ACE inhibitors/ARBs. RESULTS: A total of 59.47 million outpatient visits were made by diabetic patients in 2010. Of these, 42% visits were made by patients with both diabetes and hypertension. Controlled blood pressure (≥140 mmHg) was found in 44% (95% CI: 39-47)% of the total hypertensive diabetic visits. ACE inhibitors/ARBs were prescribed in 51% or 12.88 million (95% CI: 8.9-15.6) hypertensive diabetic visits. Enalapril and Lisinopril were the most prescribed ACE inhibitors/ARBs. After controlling for various factors, multivariable logistic regression analysis showed that males were more likely to be prescribed ACE inhibitors/ARBs as compared to females (Odds Ratio, OR 1.63, 95% CI: 1.01-2.63). Patients living in the Northeast were more likely to receive ACE inhibitor/ARBs as compared to the South (OR 1.267, 95% CI: 1.40-5.13). CONCLUSIONS: Hypertension management was suboptimal among hypertensive diabetic patients. Recommended first line of treatment, ACE inhibitors/ARBs were prescribed in over half of the outpatient visits. The study also found variation in use of ACE inhibitors/ARBs across gender and region. Future studies should examine factors related to gender disparities and regional variation in use of ACE inhibitors/ARBs in hypertensive diabetic patients.

OBJECTIVES: Diseases of the heart pose an extreme burden on health care resources in the United States. Inpatient admissions originating from the emergency room increase the burden on health care resources and may be indicative of disparities in terms of age, education, gender and insurance status in the population sample. More research should explore whether this translates to racial groups. Further studies should focus on the extent of inpatient admission for 3 types of heart surgeries. METHODS: This study used data from the 2011 Medical Expenditure Panel Survey. Logistic regression analyses were used to estimate associations between patient characteristics and source of inpatient admission for coronary-artery bypass, coronary-artery bypass and pacemaker implant surgeries, respectively. Of these 11 coronary-artery bypasses and 12 pacemaker implant surgeries. The models were adjusted for comorbidities and the level of significance was set at 95%. RESULTS: There were 24 and 57 patients undergoing coronary-artery bypass and pacemaker implant surgeries, respectively. Of these 57 coronary-artery bypasses and 12 pacemaker implants were admissions originating from the emergency room. No valve surgeries originated from the emergency room. Male patients of age 55 to 70 years with middle school education and having no insurance had higher odds for having an inpatient admission originating from the emergency room for coronary-artery bypass surgery (OR 1.23, CI 0.70–0.85; OR: 1.56, CI 1.12-1.9; OR 0.51; 95% CI: 0.32-0.62; OR: 0.30, CI 0.64-0.77), when compared with those with elective admissions for the procedure. The effects were similar for non-elective pacemaker implants. CONCLUSIONS: Literature suggests that there are associations between non-elective surgical events and inpatient admissions through the emergency room. This study found that patient characteristics have an influence on the source of admission for inpatient heart surgeries. The demographic profile of patients at risk for heart surgeries originating from the emergency room is suggestive of existent disparities in terms of age, education, gender and insurance status in the population sample. More research should explore whether this translates into other health care services.

OBJECTIVES: Examine lipid-altering drug use patterns, statin adherence, and persistence among UK high-risk vascular disease (HRVD) patients in the United Kingdom (UK). METHODS: Patients with HRVD, including a history of acute coronary syndrome (ACS), >30 days–365 days after discharge for ACS, cerebrovascular arterial disease, peripheral arterial disease, and diabetes were included from regional hospital and community care from 1 January 2008 to 31 January 2011, with a minimum of 12-month continuous enrollment before the index date were identified using the Clinical Practice Research Datalink with Hospital Episode Statistics data. The data of the first HRVD diagnosis satisfying the above inclusion criteria were defined as the index date. Use of statins was measured during the 6-, 12-, and 24-month follow-up periods. Statin adherence (medication possession ratio [MPR]) was obtained, for 6, 12, and 24 months after the index date. Statin persistence was defined as the time from early statin use on or after the index date until the last date of exposure prior to a gap of ≥30 days.