

PD). The outcome was adherence to AH drugs in the 6-month post-index period. Logistic regression analysis was conducted to explore the impact of CVD hospitalizations on changes in adherence to AH drugs. **RESULTS:** There were 1332 patients with AH drugs. Patients with a CVD hospitalization were 2.9 times (95% Confidence Interval: 2.1-3.9) more likely to be adherent in the 6-month post-index period compared to control patients. Among patients with a CVD hospitalization, the proportion of patients who were non-adherent to AH drugs in the 6-month post-index period was 30.6%. **CONCLUSIONS:** Patient adherence to AH drugs improved after a CVD hospitalization, but there was still a substantial proportion of patients who were non-adherent after that hospitalization. Counseling patients on medication adherence during their hospitalization may be an effective way for improving their adherence following discharge.

## PCV64

## ADHERENCE TO MEDICATIONS WITH ONCE-A-DAY (QD) AND TWICE-A-DAY (BID) DOSING FORMULATIONS IN ACUTE CORONARY SYNDROME (ACS) PATIENTS

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**OBJECTIVES:** To estimate patient adherence with once-a-day (QD) vs. twice-a-day (BID) chronic medications following hospital discharge for ACS. **METHODS:** A retrospective cohort study of patients discharged between 1/1/2007 and 4/30/2009 with an ACS diagnosis was performed using a large hospital and pharmacy claims dataset. Two chronic medications dispensed for QD and BID utilization, carvedilol and metformin, were analyzed for adherence measures [persistence, days on therapy, compliance (medication possession ratio, MPR), total # of dispensed prescriptions, gap (days) between refills] over a 12 month post-index period. Included patients had first dispensed prescription of carvedilol or metformin within 60 days of discharge (index prescription) and had Rx activity for any drug  $\geq$  12 months post-index. Persistence was defined as percentage of patients without a therapy lapse of > 30 days from last dispensed day's supply. **RESULTS:** Persistence with carvedilol QD vs. BID (N=168 vs. 2086) at 6 months was 44.0% vs 43.7% and at 12 months was 24.4% vs. 25.5%. Persistence with metformin QD vs. BID (N=136 vs. 614) at 6 months was 50.7% vs 53.7% and at 12 months was 28.7 vs. 35.0%. The average days on therapy for carvedilol QD vs. BID at 6 months was 120.5 vs. 121.9 and at 12 months was 196.7 vs. 203.0. Average days on therapy for metformin QD vs. BID at 6 months was 123.6 vs. 136.2 and at 12 months was 206.1 vs. 237.7. Compliance (MPR) with QD vs. BID carvedilol at 12 months was 84.2% vs 80.7% and for metformin was 77.6% vs 81.6%. Additional adherence metrics were consistent for QD vs. BID dosing. **CONCLUSIONS:** In ACS patients, no clinically meaningful differences on adherence measures were observed between QD versus BID dosing formulations over a 12 month follow-up period. Results indicate potential opportunities to improve persistence with chronic therapies in ACS patients.

## PCV65

## NEW STATIN USERS' PERSISTENCE AND ADHERENCE: BOTH ARE CRITICAL CONCEPTS IN THE COMPREHENSIVE CHARACTERIZATION OF MEDICATION EXPOSURE

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**OBJECTIVES:** Justification for the Use of Statins in Prevention: an Intervention Trial Evaluating Rosuvastatin (JUPITER) demonstrated a statin benefit for primary prevention. However, real-world patients may not exhibit medication persistence and adherence seen in the trial. We described persistence and adherence of first-time statin users. **METHODS:** A 10% random sample of the IMS LifeLink Health Plan Claims Database was used to obtain prescription claims records for adult ( $\geq$ 18 years) first-time statin users with continuous health plan eligibility 12 months prior and 32 months after the index statin prescription between July 1, 1997 and December 31, 2008. Persistence and adherence were measured during the 24 months after statin initiation. Patients were persistent if gaps in statin use did not exceed 180 consecutive days. Adherence was measured as the medication possession ratio (MPR) during the period of persistence. Persistence groups were categorized as 'short' (<9 months), 'intermediate' (9-16 months) and 'long' (17+ months) and compared using ANOVA. **RESULTS:** Among 26,530 new statin users, the mean length of persistence was 17 months. The proportions in each persistence category were: 21% 'short', 12% 'intermediate' and 68% 'long'. 32% were persistent for 24 months or more, as compared to 75% of JUPITER patients taking medication after the median 1.9 year study period. Mean MPR of the 'intermediate' and 'short' persistence categories were similar (0.70 vs. 0.69, P=.15), but lower than the overall mean MPR of 0.80. Mean MPR was greatest in the 'long' persistence category (0.85, P<.0001) and was higher than the overall mean MPR. **CONCLUSIONS:** Persistence and adherence measure two different but critical concepts: the length of time patients use statins and their adherence to the statin regimen during that period, which we found to vary. Extrapolating the primary prevention benefits of statins must account for both measures, as they differ from clinical trials to practice.

## PCV66

## ADHERENCE RATES AMONG HEALTH PLAN MEMBERS STARTING GENERIC VERSUS BRAND STATIN THERAPY

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**OBJECTIVES:** Several studies have demonstrated that higher patient out-of-pocket cost may result in lower medication adherence. The purpose of this study was to

measure Medication Possession Ratio (MPR) among patients newly-prescribed a brand or generic statin medication in a managed Medicaid plan and a commercial health plan. **METHODS:** We conducted a retrospective analysis using pharmacy claims data to identify patients who were new to statin treatment (no pharmacy claim for a lipid-lowering medication in the previous 12 months). Patients were categorized based on their index medication. We used a Robust linear regression model to determine predictors of adherence. **RESULTS:** A total of 738 commercial patients and 2175 Medicaid patients were included. Sixty percent of Medicaid patients and 49% of commercial patients initiated therapy with a generic medication. Average patient out-of-pocket cost for commercial plan patients was \$9/month for generic and \$15/month for brand. Medicaid patients had no copayment for generic or brand medications. In the commercial plan, there was no significant difference in MPR between patients who initiated therapy with generic or brand statins (MPR 0.75 vs. 0.73, respectively). In the Medicaid plan, MPR was significantly higher among patients who started on generic medications (0.69 vs. 0.63). In robust linear regression, MPR was significantly related to age, number of comorbidities and generic use. After we adjusted MPR for age and comorbidities, MPR remained significantly higher in the Medicaid generic group. **CONCLUSIONS:** Medicaid patients prescribed a generic statin as initial therapy were more adherent than those prescribed a brand, despite having no copayment for generic or brand medications. This difference was not present among commercial plan patients who had a higher cost share for brand medications. This suggests that additional research is needed to identify non-financial barriers to adherence.

## PCV67

## EXAMINING MEDICATION ADHERENCE AMONG TRICARE BENEFICIARIES RECEIVING STATIN THERAPY FOR SECONDARY PREVENTION OF CORONARY HEART DISEASE IN MILITARY TREATMENT FACILITIES IN THE UNITED STATES

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**OBJECTIVES:** To examine statin adherence and persistence among patients receiving treatment for secondary prevention of coronary heart disease (CHD) at US Military Treatment Facilities (MTF) within the Department of Defense (DoD). **METHODS:** Retrospective cohort study utilizing the DoD Military Health System database to examine 21,053 TRICARE beneficiaries between 18-75 years of age, receiving medical services for a primary CHD event at an MTF between January 1, 2004 and December 31, 2008. Drug adherence was measured using the Medication Possession Ratio (MPR) at 6, 12 and 18 months. Persistence was measured as duration of statin-therapy based on  $\geq$ 35-day refill gap. Covariates included age, gender, comorbidities, drug-switching and dosage titration. Logistic regression was conducted to assess predictors of adherence [95% Confidence-Intervals]. **RESULTS:** The CHD cohort (N=21,053) was 74% male with a mean age of 57.4(SD=8.8) years. Overall mean MPR was 89%(SD=22) at month six (M6), 84%(SD=25) at 12-months (M12), and 81%(SD=26.4) after 18-months (M18). Approximately 80% of patients were adherent (MPR $\geq$ 80%) with statin-therapy at M6 which declined to 71% at M12, and 69% at the end of M18 (p<.001). Older male patients with hyperlipidemia were more adherent. Adjusting for covariates, patients were more likely to be adherent at M6, M12, and M18 that switched statins (OR=1.87[1.65-2.13], 1.3[1.24-1.46], and 1.07[1.00-1.15]) or had at least one titration adjustment (OR=2.99[2.62-3.40], 1.86 [1.72-2.01], and 1.54[1.44-1.65]) compared to patients with no therapeutic adjustments. Overall mean persistence to statins was 322 days. Patients experiencing  $\geq$ 35-day refill gap increased from 34% to 53% to 63% at 6, 12, and 18-months respectively. **CONCLUSIONS:** This study showed statin adherence was high among DoD patients receiving medical care at MTFs for secondary prevention of CHD during the first 6-months. Adherence and persistence, however, declined by month 12. Improved patient adherence was associated with closer monitoring of prescribed therapy, as seen among patients who were titrated or switched statins.

## PCV68

## FACTORS ASSOCIATED WITH NON-ADMINISTRATION OF ORDERED PHARMACOLOGIC VENOUS THROMBOEMBOLISM PROPHYLAXIS DOSES

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**OBJECTIVES:** A recent study by our team indicated that approximately 13% of prescribed venous thromboembolism (VTE) prophylactic doses are not administered. The goal of this study was to determine documented reasons and describe the distribution patterns for non-administered VTE prophylaxis doses. **METHODS:** We conducted a retrospective review of electronic medication administration records using our computerized physician order entry system. The study included hospitalized patients aged 18 years or older who were ordered pharmacologic VTE prophylaxis from December 1, 2007 through June 30, 2008. **RESULTS:** A total of 108,533 VTE prophylaxis doses were ordered for 8,607 patients. 12.8% of ordered doses were not administered. Non-administration rates varied by patient floor from 4.8% to 33.9%. Approximately 53% of doses that were not administered (6.8% of all doses) were documented as patient refusal – the most common documented reason for non-administration of VTE prophylaxis by a wide margin. Patient refusals varied greatly by nursing unit, ranging from less than 1% to 19% of ordered doses. Patient refusals were highly concentrated on certain nursing units; 5 nursing units accounted for two-thirds of all refused doses. A small number of patients accounted for the vast majority of refused doses; 11% of patients who refused more than 1 dose accounted for nearly 87% of all refused doses. **CONCLUSIONS:** Patient