A COMPARISON OF BLOOD PRESSURE OUTCOMES ASSOCIATED WITH THE USE OF ANGIOTENSIN-RECEPTOR BLOCKERS (ARBs) IN PATIENTS WITH HYPERTENSON IN A MANAGED CARE SETTING.

OBJECTIVES: To compare blood pressure (BP) outcomes (changes in BP and goal attainment) in adult patients (age ≥18 years) treated with an ARB or ARB-HCTZ fixed dose combination. METHODS: A retrospective study was conducted using the GE Centricity EMR database, which contains the ambulatory health records for more than 10 million unique patients. Patients with a pharmacy claim for ARBs or fixed-dose combination (FDC) with HCTZ (candesartan, irbesartan, losartan, olmesartan or valsartan) prior to December 2007 were included in the study. Demographic, clinical characteristics (co-morbidities, previous antihypertensive medications) and BP readings at baseline and throughout the 13-month follow-up period were recorded. The mean change in systolic and diastolic BP and percent patients attaining BP goal (two consecutive BP readings within 140/90 mmHg) with ARBs were compared with the combination of ARBs and HCTZ.

RESULTS: A total of 81,706 patients (60.6% female, mean age 63.6 years) receiving an ARB or ARB-HCTZ FDC were identified. Patients with prior antihypertensive medication use [57,501 (70.4%)] had a higher baseline BP readings [mean SBP (SD): 147.4 (29.3) vs. 138.7 (18.9) mmHg; mean DBP (SD): 84.2 (17.93) vs. 80.8 (12.35)] and also experienced greater reductions in BP [mean (SD): ((mmHg): 9.84, 13.73, 150.76, 12.22 mmHg respectively (p < 0.001) versus NER/S patients, though the pre-index DCI score was statistically greater proportion of patients with prior antihypertensive medication usage (57.8% vs. 49.5%) were not at BP goal. BP goal attainment was similar between the two groups (60.6% vs. 62.6%, prior vs. absence, respectively) with a greater proportion of patients with prior antihypertensive medication use (75.6%) failed to meet BP goal. When controlled age and gender (fixed factor) and added gender (covariate) to the model, the means of SeDBP&SeSBP were 9.84, 13.73, 150.76, and 12.22 mm. Hg respectively (p < 0.001) versus NER/S patients, though the pre-index DCI score was statistically greater proportion of patients with prior antihypertensive medication use (57.8% vs. 49.5%) were not at BP goal. BP goal attainment was similar between the two groups (60.6% vs. 62.6%, prior vs. absence, respectively) with a greater proportion of patients with prior antihypertensive medication use (75.6%) failed to meet BP goal. When controlled age and gender (fixed factor) and added gender (covariate) to the model, the means of SeDBP&SeSBP were 9.84, 13.73, 150.76, and 12.22 mm. Hg respectively (p < 0.001) versus NER/S patients, though the pre-index DCI score was statistically greater proportion of patients with prior antihypertensive medication use (57.8% vs. 49.5%) were not at BP goal. BP goal attainment was similar between the two groups (60.6% vs. 62.6%, prior vs. absence, respectively). Mean time to goal (82.8 days vs. 78.5 days, prior vs. absence, respectively) was also similar between the two groups. CONCLUSIONS: Most patients initiating ARB/ARB-HCTZ therapy have used other antihypertensive medications in the 13 months prior to starting ARBs. Prior antihypertensive medication users experienced greater reductions in BP. BP goal attainment was similar between patients with and without prior antihypertensive medications.

COMBINED OPTIMAL LIPID VALUE GOAL ATTAINMENT AFTER TREATMENT INITIATION WITH SIMVASTATIN PLUS NIACIN EXTENDED-RELEASE COMBINATION THERAPY VERSUS EZEITIMBE PLUS SIMVASTATIN COMBINATION THERAPY IN A MANAGED CARE POPULATION WITH PRIOR CARDIOVASCULAR DISEASE IN THE UNITED STATES.

OBJECTIVES: To compare the effectiveness of dual combinations of angiotensin II receptor blockers (ARBs) and ACE Inhibitors (ACEIs) with hydrochlorothiazide (HCTZ) or Calcium Channel Blockers (CCBs) in reaching target blood pressure (BP) in a real-world setting. METHODS: Records from a longitudinal population-based database of more than 170,000 patients in over 53 family practice clinics in southwestern Ontario, Canada were analyzed. These records contained chart-abstraction information such as visit diagnosis, BP measurements and concomitant medications. Records from adult non-diabetic patients who were diagnosed with hypertension and were initiated on the combination therapy in 2005 and continued on the combination for at least 9 months were included. Hypertension was defined as a BP exceeding 140/90 mmHg, chart entry of a diagnosis of hypertension, or use of anti-hypertensive medication. The proportions of patients reaching target BP (BP less than 140/90 mmHg) were recorded and the combination of ARBs+HCTZ was compared to other combinations. Due to the well known comparable safety profile of the compounds, a safety analysis was not performed.

RESULTS: A total of 4,458 patients were treated with dual combinations of ARBs and ACEIs with HCTZ or CCBs. The proportions of patients reaching target BP were 35% on ARBs + HCTZ compared to 30% on ACEI+HCTZ (p = 0.006), 32% on ARBs+CCBs (p = 0.03), and 28% on ACEI+CCBs (p = 0.01). CONCLUSIONS: In the real-world setting, a greater proportion of hypertensive patients treated with the dual combination ARB+HCTZ reached target BP than the dual combinations of ARB+CCB, ACE+HCTZ, or ACE+CCB. Patients treated with the combination of an ARB with HCTZ or CCB reached target BP in a greater proportion than patients treated with ACEI-based counterparts.
40 mg and rosuvastatin 5–10 mg (according to UK label). OBJECTIVES: To estimate the cost of treatment for achieving 1% LDL-C reduction and the cost of getting a patient to LDL-C target of <2 mmol/L with ezetimibe co-administered with simvas- tatin, compared to atorvastatin and rosuvastatin. METHODS: Following a 6-week run-in period on 40 mg simvastatin, patients were randomized to receive randomized simvastatin 10/40 mg, atorvastatin 40 mg or rosuvastatin 5–10 mg for 6 weeks. The total treatment cost for the trial period was estimated. A post-hoc analysis of the trial participants was conducted to compare the treatment cost per patient achieving LDL-C target of <2 mmol/L between the three comparator treatments. The cost of generic simvastatin 40 mg was assumed to be £1.37 for a 28 day treatment (BNF). RESULTS: At the end of the 6 week trial period, the treatment cost per 1% reduction in LDL-C was estimated to be £1.38 (95% CI: £1.42–£1.79) for ezetimibe co-administered with simvastatin, the corresponding treatment costs were £3.33 (£2.64–£4.51) and £3.02 (£2.59–£4.40) for atorvastatin and rosuvastatin, respectively. Cost per patient achieving the LDL-C target of <2 mmol/L was £61.49 (95% CI: £56.66–£67.72) for ezetimibe co-administered with simvastatin compared to £101.84 (£87.69–£121.42) for atorvastatin and £155.06 (£122.91–£121.12) for rosuvastatin. CONCLUSIONS: Co-administration of ezetimibe with simvastatin 40 mg is a cost efficient way of reducing LDL-C compared to atorvastatin 40 mg or rosuvastatin 5–10 mg mono- therapy regimen.

PCV19 EFFECT OF CALCIUM CHANNEL BLOCKERS ON CARDIOVASCULAR DISEASE PREVENTION
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OBJECTIVES: Antihypertensive therapy is a well-established approach to reducing the risk of cardiovascular disease (CVD). The main objective of this meta-analysis was to find out whether the calcium channel blockers are superior, equal, or inferior to other treatments in reducing the frequency of cardiovascular complications.

METHODS: Studies were identified through PubMed with a publication date before February 20, 2016. We selected studies in hyperensive patients and included at least 100 patients, who were randomly assigned calcium channel blockers or other antihypertensive drugs and who were followed up for at least 1 year. The 2 authors independently assessed studies for inclusion and quality. We excluded from source documents coronary heart disease, stroke, congestive heart failure, cardiovascular disease events, total mortality, cardiovascular disease mortality. RESULTS: The 16 eligible studies included 132,078 patients. Calcium channel block- ers provided more protection against stroke than the conventional therapy consisting of diuretics and/or β-blockers (risk ratio 0.86, 95% CI 0.80–0.93) and new anti- hypertensive drugs such as angiotensin-converting enzyme inhibitors on angiotensin receptor blockers (risk ratio 0.87, 95% CI 0.79–0.96). There were no significant dif- ferences in major cardiovascular events risk, total mortality and cardiovascular disease mortality between regimens based on calcium channel blockers and regimens based on the conventional therapy (risk ratio 0.98, 95% CI 0.88–1.09, risk ratio 0.98, 95% CI 0.91–1.06; risk ratio 0.95, 95% CI 0.83–1.07) or new antihypertensive drugs (risk ratio 1.00, 95% CI 0.95–1.05; risk ratio 0.97, 95% CI 0.92–1.02; risk ratio 0.96, 95% CI 0.89–1.04). CONCLUSIONS: These findings suggest that calcium channel blockers should be used as first-line drugs for stroke and risk of stroke more effectively in patients with hypertension. Moreover, when calcium channel blockers were compared with new antihypertensive drugs they demonstrated similar reductions in cardiovascular morbidity and mortality.

PCV20 THE EFFICACY OF CLOPIDOGREL VERSUS THE COMBINATION OF LOW DOSE ASPIRIN PLUS EXTENDED-RELEASE DIPYRIDAMOLE IN PREVENTING SERIOUS VASCULAR EVENTS: A NETWORK META-ANALYSIS
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OBJECTIVES: To estimate the relative efficacy of clopidogrel versus low-dose aspirin plus extended-release dipyridamole (ASA+ERDP) in preventing serious vascular events among stroke patients. Additionally, to test whether a network meta-analysis (NMA) can give reliable estimates of treatments’ relative efficacy in the absence of direct evi- dence. METHODS: A systematic literature review was conducted in EMBASE and MEDLINE to identify randomized controlled trial (RCT) evidence on the endpoint of interest. Cochrane Library was searched. Two reviewers independently assessed studies for inclusion and quality. We excluded from source documents coronary heart disease, stroke, congestive heart failure, cardiovascular disease events, total mortality, cardiovascular disease mortality. RESULTS: Co-administration of clopidogrel vs aspirin plus extended-release dipyridamole (ASA+ERDP) are of equivalent efficacy in preventing secondary serious vascular events. Furthermore, in the absence of direct evidence, statistical techniques such as NMA can provide a reasonable estimate of relative efficacy.