Table 1. Number (%) of patients who had at least one measurement of LDLC <70 mg/dL on treatment with EVO 140 mg or ALI 75 or 150 mg every 2 weeks for 24 weeks.

	HeFH only (n=43)	CVD only (n=38)	HeFH & CVD (n=26)	Total cohort (n=107)
Entry LDLC (mg/dL) 25th, 50th, 75th percentiles	[149, 181, 220]	[104, 132, 148]	[122, 161, 213]	[124, 149, 192]
ALI 75 mg (n=33)	3/8 (38%)	16/19 (84%)	5/6 (83%)	24/33 (73%)
ALI 150 mg (n=30)	7/13 (54%)	6/7 (86%)	8/10 (80%)	21/30 (70%)
EVO 140 mg (n=44)	12/22 (55%)	11/12 (92%)	5/10 (50%)	28/44 (64%)
All 3 regimens (n=107)	22/43 (51%)	33/38 (87%)	18/26 (69%)	73/107 (68%)

CRT-600.05

Eligibility for PCSK9 Inhibitor Treatment in 1090 Hypercholesterolemic Patients Referred to a Regional Cholesterol Treatment Center with LDL Cholesterol >=70 mg/dl Despite Maximal Tolerated Cholesterol Lowering Therapy

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BACKGROUND Lowering of LDL cholesterol (LDLC) has been revolutionized by PCSK9 inhibitors, Alirocumab (Praluent) and Evolocumab (Repatha). PCSK9 inhibitors have approved indications as adjunct to diet and maximally tolerated lipid lowering therapy (MTLLT) for patients with heterozygous familial hypercholesterolemia (HeFH), homozygous familial hypercholesterolemia, or clinical atherosclerotic cardiovascular disease (CVD) where LDLC lowering is insufficient despite MTLLT.

OBJECTIVE We have applied FDA approved and commercial insurance eligibility criteria for PCSK9 inhibitor use in 1090 patients serially referred to our Cholesterol Diagnosis and Treatment center (within the last 3 years), who, after ≥ 2 months of MTLLT, retained follow up LDLC ≥ 70mg/dl. We documented the percentage of patients with HeFH and/or CVD who met FDA insurance criteria for PCSK9 inhibitor therapy using LDLC goal-based guidelines.

METHODS We included 1090 consecutively referred patients with LDLC ≥ 70mg/dl after ≥ 2 months of MTLLT, and characterized them by FDA indications and commercial insurance eligibility for PCSK9 inhibitor use.

RESULTS Of the 1090 patients with LDLC ≥ 70 mg/dl after ≥ 2 months of maximally tolerated MTLLT, 353 (32%) had HeFH and/or CVD events. Of these 353 patients, 140 (13% of the cohort of 1090) had HeFH and/or CVD, with LDLC > 100 mg/dl on MTLLT, meeting both FDA and commercial insurance criteria for PCSK9 inhibitor therapy. Fifty-one patients (5%) were statin intolerant only without HeFH or CVD events.

CONCLUSION Of 1090 patients referred for diagnosis and treatment of high LDLC, with LDLC ≥ 70 mg/dl after ≥ 2 months on MTLLT, 140 (13%) had HeFH and/or CVD, with LDLC > 100 mg/dl, meeting both FDA and commercial insurance criteria for PCSK9 inhibitor therapy. Extrapolating from our referral cohort where 13% of hypercholesterolemic patients would be eligible by FDA-commercial insurance criteria for PCSK9 inhibitors, it is possible that at least 6 million Americans would be candidates for PCSK9 inhibitor therapy, where specialty-priced drugs would need to be used for treatment of a common public-health problem.

CRT-600.06

Comparison of HOMA-IR change Among Angiotensin Converting Enzyme Inhibitor, Angiotensin II Receptor Bloker, and Calcium Channel Blocker During Statin Medicaton

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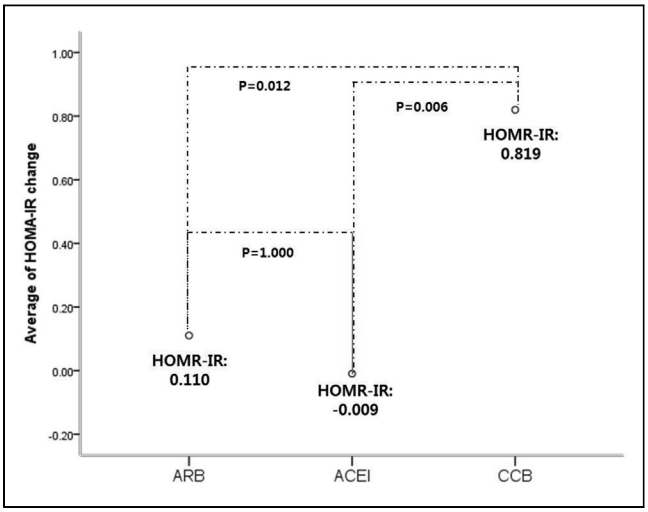
BACKGROUND In several studies, increase in the incidence of new-onset diabetes (NOD) associated with statin medication has been reported. There have been several reports showing that renin-aldosterone system (RAS) blocker is associated with prevention of new-onset diabetes mellitus (NODM). However, there are limited data regarding comparison for the change of HOmeostasis Model Assessment Insulin Resistance (HOMA-IR) index among angiotensin converting enzyme inhibitor (ACEI) plus statin, angiotensin II receptor blocker (ARB) plus statin, and calcium channel blocker (CCB) plus statin medication.

METHODS Finally, the enrolled patients was totally 757 pts. The patients were classified into three groups; ARB plus statin, n=166; ACEI plus statin, n=94; CCB plus statin, n=497.

RESULTS The mean follow-up of each group was 584.7±249.9 in ARB, 449.6±255.9 in ACEI, and 634.6±267.1 day in CCB. The HOMA-IR value was 0.110±2.693 in ARB, -0.009±3.686 in ACEI, and 0.819±2.235 in CCB (p=0.029, ANOVA). In post hoc analysis, the change of HOMA-IR in the ARB and ACEI group was significantly lower than the CCB group (p=0.012 and p=0.006, respectively by Bonferroni). However, the change of HOMA-R was similar between ARB and ACEI (p=1.000) (Fig).

CONCLUSION In the present study, ARB and ACEI medication was more effective with the increase of the HOMA-IR compared to CCB in patient with statin medication.



CRT-600.07

Head to Head Efficacy of Alirocumab 75 and 150 mg vs Evolocumab 140 mg in Real World Patients

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BACKGROUND In 107 high-risk patients, 60% with cardiovascular disease (CVD), and with median low-density lipoprotein cholesterol (LDLC) 149 mg/dL despite maximum tolerated lipid lowering therapy (MTLT), we compared and contrasted efficacy-safety of Alirocumab (ALI 75mg, 150 mg) and Evolocumab (EVO 140 mg).

METHODS We followed 107 patients for a median 24 weeks, 33 on ALI 75 mg, 30 on ALI 150 mg, and 44 on EVO 140 mg bi-weekly. After adjustment for age, race, gender, body mass index, treatment duration, entry LDLC, heterozygous familial hypercholesterolemia (+/-), statin intolerance (+/-), and previous CVD (+/), absolute and % changes in LDLC were compared for the ALI and EVO doses. Treatment side effects were also compared.

SCIENCE