	CHOL (mmol/L)	LDL (mmol/L)	HDL (mmol/L)	TG (mmol/L)	Smoking (%)	Weight (kg)
Baseline	5.46	3.41	1.08	2.18	34.5	83.1
End of CREP	4.16	2.30	1.12	1.64	10.6	82.0
Follow-up	4.40	2.50	1.14	1.69	12.7	83.3

1047-185 Postprandial Lipoproteinemia Exhibits a Bimodal Response in Metabolic Syndrome Patients

Robert S. Rosenson, Anna Huskin, Northwestern University, Chicago, IL

Background: Metabolic syndrome is defined by abnormal fasting lipids; however postprandial lipemia may provide important insights regarding cardiovascular risk in these subjects. This study evaluated postprandial lipoprotein responses in metabolic syndrome subjects.
Methods: 43 subjects (31 M, 12 F) with fasting triglycerides ≥ 150 mg/dL and ≥ 2 other NCEP criteria for the metabolic syndrome received a NCEP Step 2 diet for 6 months. A standardized oral fat load (50 g/m^2) was given. Plasma samples were collected at baseline, 3 hours, and 8 hours after the last meal. NMR lipoprofiles were analyzed from refrigerated plasma. Data are reported as medians.
Results: 28 subjects had an early TG peak and 16 subjects had a late peak. The lipoprotein concentrations are described in the table. Late peakers were significantly older (56.9 ± 7.6 vs 50.2 ± 10.3, p = 0.03), had higher fasting glucose levels (88.4 ± 12.5 vs 78.1 ± 16.5, p = 0.04), and tended to have more metabolic syndrome risk factors (p = 0.18). Clearance of chylomicrons and large VLDL were delayed in late vs early peakers (p < 0.01 for each variable) (Table). Small LDL levels fell less rapidly in late peakers than early peakers (p = 0.02).
Conclusion: Hypertriglyceridemic subjects with the metabolic syndrome exhibit variable postprandial lipoprotein responses. Delayed lipoprotein clearance is associated with older age, higher fasting glucose levels, and more metabolic syndrome risk factors.

Variable		Early Peakers (3 hours)			Late Peakers (8 hours)				
	% Change 0 to 3 hours	% Change 0 to 8 hours	% Change 3 to 8 hours	% Change 0 to 3 hours	% Change 0 to 8 hours	% Change 3 to 8 hours	*p*-value for % change 0 to 3 hours	*p*-value for % change 0 to 8 hours	*p*-value for % change 3 to 8 hours
TG	55.1	11.9	-28.8	42.0	52.9	6.7	0.04	<0.01	<0.01
LDL-C	7.0	5.1	-0.6	5.5	9.1	-0.4	0.75	0.85	0.48
HDL-C	-8.9	3.9	14.2	-3.1	2.1	1.6	0.10	0.49	0.05
Chylomicrons	1342.1	151.1	-83.8	609.5	590.9	-8.8	0.27	0.04	<0.01
Large VLDL	128.8	42.8	-33.1	56.7	131.1	36.9	0.05	0.04	<0.01
Large HDL	-6.0	-6.4	3.8	-9.0	-22.2	-17.5	0.99	0.26	0.03
Small LDL	-9.2	-54.6	-48.2	-6.7	-9.5	-6.1	0.94	0.17	0.02

1047-186 Raloxifene Improves Lipoprotein, Apolipoprotein and Fibrinogen in Postmenopausal Osteoporotic Women With or Without Hypertriglyceridemia

Thomas Dayspring, Yongming Qu, Cheryl A. Keech, North Jersey Institute of Menopausal Lipidology, Wayne, NJ, Lilly Research Laboratories, Indianapolis, IN

Background: Raloxifene (RLX) is used for prevention and treatment of postmenopausal osteoporosis and has positive effects on markers of cardiovascular disease, including lipid lowering. Women with high triglycerides (hTG) are at increased risk of cardiovascular events.
Methods: We determined the effect of 3 yrs of RLX (60 or 120 mg/d) vs. placebo (PLC) on lipoproteins, apolipoproteins and fibrinogen in women who were classified as having hTG (>150 mg/dL) vs. normal TG (nTG, ≤150mg/dL) at baseline in the Multiple Outcomes of Raloxifene Evaluation trial. A mixed model repeated measure analysis was used.
Results: Effect of RLX compared to PLC did not depend on baseline TG status (interaction P>0.1). At baseline, TG levels in hTG (n=446) vs. nTG (n=2213) groups were 204 vs. 91 mg/dL, respectively; hTG women had elevated LDL-C, non-HDL-C, total cholesterol and low HDL-C (P<.005 vs. nTG). At 3 yrs, RLX improved LDL-C, Apo B, non-HDL-C, Apo A1, total choelsterol and fibrinogen compared to PLC (both TG groups). RLX was neutral on HDL-C, but increased Apo A1 compared to PLC in both TG groups. Lipoprotein changes occurred at the earliest time point measured (6 mo).
Conclusion: RLX was equally efficacious for nTG and hTG women in improving lipoproteins, apolipoproteins and fibrinogen levels.
Table 1. Mean Values (% From Baseline) for Lipoproteins and Fibrinogen at 3 Years

	High Triglyceride		**Normal Triglyceride**	
	Placebo	**Raloxifene (pooled)**	**Placebo**	**Raloxifene (pooled)**
LDL-C*	158 (-2.3)	136† (-16.5)	151 (-0.6)	135† (-12.7)
APO B*	158 (-7.5)	145† (-15.8)	138 (-2.9)	128† (-11.3)
Non-HDL-C*	195 (-3.9)	173† (-14.7)	169 (-0.6)	154† (-10.5)
HDL-C*	49 (5.0)	51 (8.1)	65 (6.3)	65 (6.0)
APO A1	144 (1.9)	151*† (4.3)	155 (0.2)	159† (2.2)
Total-C	244* (-2.5)	225*† (-10.3)	234 (0.9)	219*† (-6.4)
Fibrinogen	3.4 (2.9)	2.9*† (-12.1)	3.3 (6.7)	2.9*† (-8.9)

*P<.01 vs. baseline, for all groups indicated
†RLX vs. PLC within TG group, P≤.03
All levels expressed as mg/dL except for fibrinogen (g/L)

1047-187 Cholesterol Goal Attainment Is Associated With Lower Incidence of Cardiovascular Events and Cost of Care

Linus Jönsson, Fredrik Borgström, Jan Ståhlhammar, Evo Alemao, Donald Dongping Yin, Karolinska Institutet, Stockholm, Sweden

Introduction: Lowering elevated cholesterol decreases cardiovascular (CV) morbidity and mortality. However, a majority of treated patients do not reach recommended therapeutic goal (LDL < 3 mmol/l and total cholesterol < 5 mmol/l according to European guidelines). This study describes patterns of lipid-lowering therapy in Swedish primary care and estimates rate and determinants of goal attainment and its effect on CV events and costs of care.
Materials and Methods: Total of 9789 patients receiving lipid-lowering treatment between 1993 and 2003 were included from 29 primary care centers in a defined geographic area. Data were gathered on health care visits, hospitalizations, lab tests, pharmaceuticals, co-morbidity and risk factors though retrospective review of computerized medical records and inpatient and mortality registers. Regression methods were used to control for baseline differences and estimate event incidences and costs of care.
Results: Within first year of treatment, 4.9% patients were titrated to a higher dose, 2.9% received an add-on drug, 0.9% had a decrease in dosage and 15.3% discontinued treatment. Average reduction in LDL was 31.1% for patients treated with statin. Overall 28.5% evaluable patients attained the lipid goals within 3 months, 29.7% within one year. Goal attainment was significantly higher in patients with low baseline cholesterol level (OR = 0.53), older age (OR = 1.01), prior CV events (OR = 1.53), and who received dose titration or add-on treatment (OR = 2.27). Incidence of MI, stroke and revascularization procedures was 16.8, 13.4 and 8.9 per 1000 patients per year. Total annual incidence of CV events was 155.0 and 18.2 per 1000 patients with and without prior CV events, respectively. Patients who attained lipid goals had 31.4% lower incidence of subsequent events and lower total discounted costs compared to those not attaining lipid goals (p<0.05) during period of observation, controlling for age, gender, previous CHD and diabetes.
Conclusions: A majority (70%) of patients on current lipid management strategy do not attain lipid goals. However, goal attainment is associated with superior outcome in terms of reducing CV event rates and health care costs.

1047-188 The Ratio of Oxidized Low-Density to High-Density Lipoproteins Is an Independent Predictor of Acute Myocardial Infarction in Unstable Coronary Artery Disease

Nina Johnston, Tomas Jernberg, Bo Lagerqvist, Agneta Siegbahn, Lars Wallentin, University Hospital, Uppsala, Sweden

Background: Early risk stratification is essential in patients with unstable coronary artery disease (UCAD), i.e. unstable angina or non ST-elevation myocardial infarction (MI). Oxidized low-density lipoprotein (OxLDL) is involved in numerous pathophysiological mechanisms in the development of the disease .The aim of this study was to examine the prognostic value of OxLDL in this population.
Methods: OxLDL was analyzed in 432 patients with unstable angina or non ST-elevation MI included in the FRISC II trial. End points were death and myocardial infarction after 2 years.
Results: The median level of OxLDL was 76 (25:th-75:th percentile: 63-88 U/l). The rate of death and myocardial infarction in relation to OxLDL and the ratio of OxLDL to high-density lipoprotein (HDL) is shown in the table below . When adjusted for known predictors of adverse outcome, including age, gender, diabetes, prior myocardial infarction, ST-segment depression, troponin T and treatment strategy (non-invasive/ invasive), the ratio of OxLDL to HDL was independently associated to the risk of future MI, odds-ratio (95%CI): 2.23 (1.20-4.15).