A total of 3173 dyslipidemic patients treated with LLA and managed by general practitioners were randomly selected from a French GPs’ computerized database. History of CHD and number of CRF (age, family history of premature CHD, smoking, hypertension, HDL-C < 0.9mmol/L, diabetes) were documented. Percent of patients above AFSSAPS TIL and NCEP goal was defined for each level of CHD risk.

RESULTS: Twenty-one percent of patients had a history of CHD. Using AFSSAPS guidelines the distribution of primary prevention patients according to the number of CRF’s (1, 2, 3, >3) was 1.6, 25.5, 31.7, and 20.1%, respectively. Almost 40% of CHD patients remained above TIL and the percentages of primary prevention patients above TIL varied from 3.9% for patients with 1 CRF to 46.5% for patients with > 3 CRFs (p < 0.001). Using NCEP guidelines, percentage of patients not at goal in the different CHD risk categories were significantly higher and 74.3% of CHD patients were not at LDL-C treatment goal. CONCLUSION: Seventy-three percent of patients prescribed LLA were at high CHD risk. Increasing with CHD risk level, large numbers of patients were above TIL and LDL-C treatment goal. More effective interventions are needed in lipid lowering therapy. * AFSSAPS: French Drug Agency.

PCV8
WARFARIN ANTICOAGULATION AND OUTCOMES IN ATRIAL FIBRILLATION PATIENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS
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OBJECTIVES: To examine the relationship between International Normalized Ratio (INR) and outcomes (major bleeding events and strokes) in atrial fibrillation (AF) patients on anticoagulation with warfarin. METHODS: A systematic review and meta-analysis of studies published in English between January 1, 1985 and October 30, 2002 was performed. MEDLINE (PubMed), Current Contents, and relevant reference lists were searched. Studies enrolling patients with nonvalvular AF on warfarin anticoagulation were eligible for inclusion if they reported stroke and/or major bleeding events in relation to INR, or time spent in therapeutic range. The risk of bleeds in overanticoagulated patients (INR > 3) and the risk of strokes in underanticoagulated patients (INR < 2) was assessed. RESULTS: Twenty-one studies (6,248 patients) met all inclusion criteria. Of the 21 studies, target conventional INR of 2 to 3 was used in 9. An INR < 2, compared with an INR > 2, was associated with an odds ratio (OR) for ischemic events of 5.07 (95% confidence interval (CI) = 2.92, 8.80). An INR > 3, compared with an INR < 3, was associated with an OR for bleeding events of 3.21 (95% CI = 1.24, 8.28). On average, in the four studies with a target INR range of 2 to 3, AF patients on warfarin spent 61% of time within, 13% of time above and 26% below the therapeutic range. CONCLUSION: Available evidence indicates that in patients with non-valvu lar AF, the risk of ischemic stroke with insufficient warfarin anticoagulation (INR < 2), and the risk of bleeding events with overanticoagulation (INR > 3) is significantly higher relative to AF patients maintained within the recommended INR of 2 to 3. However, the data are sparse, heterogeneous, and mostly based on clinical trials. More studies evaluating clinical outcomes in relation to INR are needed, especially in a real-world setting.

PCV9
LIPID MANAGEMENT AND FACTORS AFFECTING GOAL ATTAINMENT IN LATIN AMERICA
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OBJECTIVE: Evaluate treatment of hyperlipidemia in Latin America and determine factors associated with NCEP-III LDL-C goal attainment in Coronary Heart Disease (CHD)/CHD risk equivalent (<= 100mg/dl) and non-CHD patients with 2+ risk factor (> = 130mg/dl). METHODS: Retrospective observational study at 40 randomly selected specialists and 20 general practices (GP) centers in Mexico, Brazil and Colombia. Physicians randomly selected adult (age > = 18) patients prescribed lipid lowering drug (LLD) for minimum 12 weeks. Date of first LLD was the index date; follow-up cholesterol measures and LLD prescribed were evaluated for minimum 3 months after index date. RESULTS: Three-hundred sixty patients were studied, 25% from GP and 75% from specialist centers; 45% had CHD/CHD equivalent, and 35% had 2+ risk factors. Mean age was 57 yrs (SD 12) and 53% were male. Median LDL-C reduction required to attain NCEP-III goal at baseline was 48% for CHD and 23% for non-CHD patients. There was no significant difference in LDL-C reduction required at baseline among the three countries. Initial LLD for CHD group were 27% low dose statins (simvastatin 10mg or equipotent), 36% medium dose statins (simvastatin 20mg or equipotent) and 18% high dose statins (simvastatin 40mg or equipotent). Proportion of physicians prescribing high dose statins was higher (p < 0.05) in Brazil (26%) than Mexico (16%) and Colombia (15%). Overall 45% patients treated with statins alone attained LDL-C goals; only 28% of CHD group. After controlling for age, gender, country, initial LLD, titration and comorbidities, patients with baseline LDL-C >/= 190mg/dl (OR = 0.47; 95% CI 0.30–0.74), hypertension (OR = 0.58; 95% CI 0.37–0.92) and CHD (OR = 0.38; 95% CI 0.24–0.60) were least likely to achieve LDL-C goal. CONCLUSION: Hyperlipidemic patients in some Latin-american countries are generally treated with statins alone; majority (55%) of patients failed to reach recommended NCEP-III LDL-C goals.

PCV10
THE IMPACT OF ADEQUATE MONITORING OF LIPID LEVELS IN PATIENTS HAVING ELECTIVE PERCUTANEOUS CORONARY INTERVENTIONS IN A LOCAL PUBLIC HOSPITAL IN HONG KONG
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OBJECTIVES: Clinical trials demonstrated that low-density lipoprotein (LDL) lowering therapy reduces mortality and morbidity in coronary heart disease patients. Therefore, it is important to ensure patient adhering to their LDL-lowering therapies. In July 2001, an intensive treatment protocol was introduced at the United Christian Hospital (UCH) in Hong Kong. The purpose of this study is to describe the impact of the protocol on the lipid levels in patients having elective percutaneous coronary interventions (PCI). METHODS: Case notes were reviewed retrospectively. The study cohort consisted of patients who were above 18 years old requiring first elective PCI from 1 July 2000 to 30 June 2002. Patients with a history of previous PCI or coronary artery bypass surgery were excluded. The intensive
monitoring started from 1 July 2001. The primary outcome measurement was the LDL levels. The secondary outcome measurement was the percentage of goal attainment. Lipid control was defined as adequate if the LDL level was < or = 2.6 mmol/L. The LDL levels were measured at baseline, 1, 3, 6, and 12 months.

RESULTS: A total of 617 patients were recruited. There were 383 patients in the intensive monitoring group and 283 patients in the control group. In the control group, a less intensive monitoring was adopted. Less than 20% of control group patients had a regular 3-monthly LDL-levels monitoring. Over 60% of patients in the intensive monitoring group and 10% of the control group patients reached target LDL-levels by week 4. Over 90% of the intensive monitoring group patients maintained at target LDL levels in a following 6-month period. CONCLUSION: This study shows that intensive monitoring of LDL-levels in hyperlipidaemic patients receiving PCI have a higher goal attainment rate that remains high within 6-month period. This study paves way for a prospective, randomized-control trial to confirm the results in the future.

PCVII
EVALUATING CLINICAL OUTCOMES FOR SUBJECTS THAT ARE NEWLY INITIATED ON HMG-COA REDUCTASE INHIBITORS IN A NATURALISTIC ENVIRONMENT USING LONGITUDINAL DESIGN
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OBJECTIVES: To evaluate lipid level changes, NCEP-ATPIII LDL-C goal attainment and time to goal in a managed care setting. METHODS: Patients were included if they began atorvastatin, fluvastatin, pravastatin, or simvastatin therapy between July 1, 1999 and June 30, 2001, and had no dyslipidemic therapy in the previous 6 months, continuous health plan enrollment, 6 months pre-index and 12 months post-index, and post-index lipid measurements. Goal attainment status was assessed at each LDL-C lab result utilizing NCEP-ATPIII guidelines. Descriptive statistics, generalized estimating equations (GEE), and Cox proportional hazard with multiple-failure data were employed for analysis. Model covariates included age, gender, coronary artery disease, diabetes mellitus, hypertension, duration of statin therapy, medication possession ratio (MPR), and baseline lipid profile. RESULTS: A total of 16,979 patients were identified for this study (fluvastatin = 1251; pravastatin = 2302; simvastatin = 5603; atorvastatin = 7823). The mean overall age of the cohort was 62 ± 13 years, 49% were male, and 58% of patients were defined as secondary prevention by NCEP-ATPIII risk criteria. The overall mean duration of therapy (persistence) was 16 ± 9 months and adherence to therapy (MPR) was 79%. The mean/median doses were as follows: atorvastatin = 14 mg/10 mg, fluvastatin = 35 mg/40 mg, pravastatin = 28 mg/20 mg and simvastatin = 24 mg/20 mg. Changes in lipid levels for atorvastatin, fluvastatin, pravastatin, and simvastatin were as follows: total cholesterol (-21%, -15%, -16%, -20%), LDL-C (-28%, -21%, -23%, -28%), HDL-C (0.1%, 1.0%, 1.0%, 1.5%), and triglycerides (-8%, -1%, -3%, -5%), respectively. The probabilities of achieving LDL-C goal and median time to goal were: atorvastatin (0.51, 236 days); fluvastatin (0.30, 379 days); pravastatin (0.35, 377 days); simvastatin (0.47, 246 days). CONCLUSIONS: Patients who were prescribed atorvastatin had significantly greater improvements in total cholesterol and triglycerides and attained LDL-C goal significantly more often evaluating each lab result independently. Changes in LDL-C and HDL-C were similar between atorvastatin and simvastatin.

PCV12
UTILIZATION PATTERNS OF HYPERTENSION THERAPIES AMONG PATIENTS INITIATING ANGIOTENSIN II RECEPTOR ANTAGONIST THERAPY
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OBJECTIVE: Angiotensin II receptor antagonists (ARB) provide a new therapeutic option for hypertensive patients. This analysis examines patient utilization patterns subsequent to initiation on an ARBs. METHODS: This study uses a retrospective cohort design with a six-month baseline period and a twelve-month evaluation period. New users of ARBs were identified in AdvancePCS’ pharmacy claims database. Studied patients were continuously eligible for pharmacy benefits, 20 to 80 years of age, and initiated therapy on losartan, valsartan, candesartan, telmisartan, losartan HCT, valsartan HCT, candesartan HCT, or telmisartan HCT between November 1, 2001 and April 30, 2002. RESULTS: A total of 167,083 patients initiated ARB therapy during the enrollment window, 72% on ARB monotherapy and 28% on combination therapy. Monotherapy patients (p < 0.05) were more likely to discontinue than combination therapy patients. No other significant differences in discontinuation rates were identified. Patients who initiated with monotherapy were equally likely to add a diuretic as a second therapy regardless of ARB. Patients who initiated on losartan were less likely (p < 0.05) than patients who initiated on losartan (OR = 0.67), valsartan (OR = 0.81), ibersartan (OR = 0.82), or candesartan (OR = 0.82) to receive triple anti-hypertensive therapy. Similarly, patients who initiated on valsartan (OR = 1.23) or losartan monotherapy (OR = 1.14) were more likely than other monotherapy patients (p < 0.05) to titrate upwards. Combination patients who initiated on losartan HCT or valsartan HCT were more likely to add another anti-hypertensive drug than were patients who initiated on either candesartan HCT (OR = 0.69, p < 0.05) or telmisartan HCT (OR = 0.82, p < 0.05). Those who initiated telmisartan HCT were least likely to increase the initial dose (p < 0.05). CONCLUSIONS: Differences in patient utilization patterns were identified based on initial choice of ARB. These findings may result from differential clinical efficacy, patient health history, or managed care influence on drug choice.

PCV13
RECENT EVIDENCE SURROUNDING THE EFFICACY OF PROTECTED CAROTID ANGIOPLASTY WITH STENTS
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OBJECTIVES: Carotid artery stenosis is an important risk factor for, and is also believed to cause as much as 20% of all strokes. Several surgical therapies are available including carotid endarterectomy (CEA) and carotid angioplasty with stenting (CAS). Although there appear to be benefits to adopting widespread use of CAS, numerous parties have expressed concern about its safety. A number of large protected CAS (PCAS) trials are underway, however, it will be 3 to 5 years until these results are released. In the interim, PCAS continues to be employed. Since numerous PCAS studies were recently published, the aim of this systematic review was to answer the question: based on the most recent evidence, what is the efficacy of protected carotid angioplasty with stenting (PCAS)? METHODS: Electronic, manual and bibliographic searches of Medline, PreMedline, Healthstar/OVID, EMBase, PubMed were conducted. RESULTS: Over 400 articles were identified, of which 18 studies met the inclusion criteria. The technical complication rate of