policies for device utilization and future development however, it is imperative to describe the characteristics of these patients. To this end, we studied the age at initial implant for 35,533 patients who underwent ICD surgery in the US from 1990 [illegible] Data were obtained from CPI, the only manufacturer with an FDA-approved [illegible] in the US until 1995.

Result: During this time period, mean age at initial ICD implant increased from 60.0 yrs to 63.4 yrs. Regression analysis showed an average increase in age at implant of 140 days/yr ($p < 0.001$). Although the overall mean age for females was lower than for males (*60 ± 12.8 yrs vs. 62.5 ± 10.6 yrs*, $p < 0.001$), there was no difference in the average increase in age for each year of observation. The proportion of pts of Medicare-eligible age (≥ 65 yr) increased from 39% in 1986 to 53% in 1994 ($p < 0.001$). The US population ≥ 65 yrs old, increased from 12.1% to 12.8% over the same time period.

Conclusions: 1) Future public policy decisions regarding Medicare funding of devices and other investigational medical procedures must consider the increasing age of recipients of that technology. 2) Specifically for ICD, our findings suggest that by the year 2000, two-thirds of all patients receiving an ICD will be of Medicare age.

10:45

791-2 High Annual Event Rate of Silent Cerebral Infarction in Patients With Nonvalvular Atrial Fibrillation

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Nonvalvular atrial fibrillation (NVAF) increases the risk of stroke almost six fold, however, the incidence of silent cerebral infarction (SCI) is unclear. To study the annual event rate of SCI in patients with NVAF, 100 patients (68 male, 32 female; 59 continuous, 41 paroxysmal; age, 62.0 ± 1.0, mean ± SE) without history of cerebrovascular accident underwent clinical evaluation, ECG, 2D and M mode Echo/Doppler-cardiography. Brain magnetic resonance imagings (MRI, T1- and T2-weighted, and Proton images) were determined twice with 12 months interval. None of these patients had received anticoagulant or antiplatelet therapy. Percent fractional shortening of left ventricular wall was 38 ± 5.5%. SCI were detected in 84% of patients (age 50': 70%, 60': 95%, 70': 100%) in the initial MRI. There was no significant difference in the prevalence of SCI between paroxysmal and continuous Af. The average number of infarcted foci was 31.1 ± 5.5 (range: 0 to 193) per patient. During a follow-up of 12 months, the rate of SCI was 25% per year. Locations of new infarcted foci were in the white-matter (12%), the deep white-matter (60%), basal ganglion (28%), thalamus (4%) and brain stem (12%).

Thus, we conclude that the annual event rate of SCI is quite common in patients with NVAF.

11:00

791-3 Lipoprotein(a) as a Determinant of CHD in Younger Women

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Lp(a) appears to be a risk factor for CHD in men. However the role of Lp(a) in women is less clear. We examined the ability of Lp(a) to predict CHD in a population-based case-control study of women aged 65 or under, living in the greater Stockholm area. Cases were all patients hospitalized for an acute CHD event between Feb. 1991 and Feb. 1994. Controls were randomly selected from the city census and were matched to cases by age and catchment area. Lp(a) was measured using an immunoturbidometric method (Incstar) calibrated to the Northwest Lipid Research Laboratories (CV < 9%).

Of the 292 consecutive cases, 109 (37%) were hospitalized for an acute MI and 182 (63%) for angina pectoris. The mean age in both groups was 56 ± 7 years. 74 patients (25%) and 84 controls (29%) were premenopausal.

The distributions of Lp(a) were highly skewed in both cases and controls with a range from 0.1 to 114 mg/dl. Age-adjusted odds ratios for CHD in the highest versus the lowest quartile of Lp(a) was 2.1 (95% CI 1.1, 3.4). Adjusting for age, smoking, education, body mass index, systolic blood pressure, total cholesterol, triglycerides, and HDL, the odds ratio was 2.6 (95% CI 1.5, 4.4). The odds ratios were similar when comparing MI and angina patients with their respective controls. The odds ratios were 4.3 (95% CI 1.2, 15.1), and 2.3 (95% 1.2, 4.2) in pre and postmenopausal women respectively.

These results suggest that Lp(a) is a determinant of CHD in both pre and postmenopausal women.

11:15

791-4 Do We Undertreat Hyperlipidemia? The Use of Lipid-Lowering Agents in Patients With Coronary Artery Disease

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Background: Evidence suggests that lipid-lowering medications decrease mortality in patients (pts) with coronary artery disease (CAD) and hyperlipidemia; it has been suggested that LDL be the target of therapy with the goal < 100 mg/dL. The purpose of this study was to estimate how frequently pts with CAD and hyperlipidemia are prescribed lipid-lowering medications and achieve target LDL in clinical practice. *Methods:* We prospectively identified pts with known CAD electively admitted to the intermediate cardiac care service at an urban, university affiliated hospital. All pts were cared for by a cardiologist. Fasting lipid profiles were tested on admission. *Results:* Fifty-two pts were studied (mean age(sd) 61(15)yr; 77% male; 96% admitted for angiography and/or revascularization; 71% hypertensive; 27% diabetic). Eighty-one percent had LDL ≥ 100 mg/dL, of whom 31% were on lipid-lowering agents. In contrast, 100% with hypertension ($p < 0.0001$) and 92% of diabetics ($p < 0.0001$) received medical therapy for those risk factors, and 98% were on aspirin ($p = 0.0001$). Of all pts on lipid-lowering agents, only 38% had achieved target LDL ≤ 100 mg/dL. HMG-CoA reductase inhibitors were more commonly prescribed (25%) than all other lipid agents combined. Of all pts, only 6% were at target LDL ≤ 100 mg/dL with dietary therapy alone. *Conclusion:* We conclude that 1) The majority of pts eligible for lipid-lowering agents do not receive it; 2) For pts who receive therapy, the suggested target LDL is often not attained; 3) Hypertension and diabetes are treated much more frequently than hyperlipidemia.

11:30

791-5 Undertreatment of Dyslipidemia in Veterans With Coronary Artery Disease — Followup After NCEP:ATP II

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The National Cholesterol Education Program: ATP II (NCEP) has established new aggressive goals for lipid treatment in patients with coronary artery disease (CAD), which reduces recurrent CAD events in clinical trials. It is unknown how often these goals are actually achieved in the primary care setting, or whether these guidelines have influenced treatment. We studied 1,934 veterans with known CAD having lipid testing between 1991-93 and followed for 22.3 ± 10.2 (mean ± sd) months, 1 year after release of NCEP:ATP II guidelines. Dyslipidemia (LDL > 130, TG > 200, or HDL < 35) was initially present in 1580 patients (82%). Mean LDL was 144 ± 48, total cholesterol 216 ± 46, and HDL 40 ± 16 mg/dl. In 61% LDL was > 130, the previous NCEP target. At followup 84% of patients failed to meet the revised NCEP target (LDL < 100) and 59% had an LDL > 130. Mean followup lipids were unchanged from initial values. A mean of 4.5 ± 3.7 lipid profiles were drawn per patient. Lipid-lowering drugs were used in 32%, but these patients did not reach LDL goal any more often than those not on drugs. Reasons for not achieving a LDL < 100 were failure to use lipid drugs (37%), inadequate dose and/or dose-limiting side effects when drugs were used (24%), and failure to retest lipids (22%).

Nearly all in this high risk population have dyslipidemia requiring intervention by NCEP criteria; few reach target LDL levels, and lipid treatment did not improve after 2 year followup. Substantial cost and effort are expended in testing and attempting to treat dyslipidemic CAD patients in the primary care setting, but fail to achieve optimum lipid lowering. More effective treatment strategies must be implemented before the benefits of lipid lowering can be achieved outside of clinical trials.

11:45

791-6 Acute Contrast Nephropathy After Coronary Intervention: Incidence, Risk Factors, and Relationship to Mortality

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Previous studies of contrast nephropathy have identified reduced baseline renal function, diabetes, congestive heart failure, and contrast volume as risk factors for renal failure post-arteriography. The reported incidences of a rise in serum creatinine and renal failure requiring dialysis vary widely. The relationships between these events and mortality are not well understood. This retrospective cohort study of 1828 patients included all interventional