Conclusion: Many physicians reported use of class I AAD for the treatment of post-MI patients with asymptomatic VPD in spite of the CAST findings. This survey suggests that more effective methods of dissemination of clinical trials results are needed.

2:45

802-4 Care of Acute Myocardial Infarction by Non-invasive and Invasive Cardiologists: Procedure Use, Cost, and Outcome

Thomas G. Di Salvo, Sumita D. Paul, Conrad A. Smith, Michael I. Miyamoto, Donald Lloyd-Jones, Kim A. Eagle, Patrick T. O'Gara *Massachusetts General Hospital and Harvard Medical School, Boston, MA*

To determine if physician subspecialization influences practice style and resource utilization, we prospectively studied 292 consecutive emergency room admissions with MI under the care of noninvasive (NON, n = 213) or invasive (INV, n = 79) cardiologists and compared the use of cardiac procedures, cost, and outcome. *Results:* Patient age, gender, CAD risk factors, history of angina, MI, CHF, and prior cardiac catheterization, PTCA or CABG were comparable. Presentation of MI, non-Q/Q-wave MI, use of thrombolytic therapy, peak CK, and EF did not differ. Procedures, cost, and length of stay were as follows:

	NON	INV	p-value
Thall Ett (%)	45	36	NS
Catheterization (%)	59	67	NS
CABG (all pts, %)	13	12	NS
PTCA (3VD, %)	17	35	NS
PTCA (1 or 2-VD, %)	39	60	<0.05
Total hospital days	14	17	<0.05
ICU days	3.1	5.4	<0.01
Hospital costs ($)	19,400	25,500	0.01

There were no differences between groups in the incidence of post-MI complications (shock, pulmonary edema, post-MI angina, VT/VF) or reversible thallium perfusion defects. Overall, 61% of patients underwent cardiac catheterization; there were an equal number of patients with 1, 2, and 3-vessel CAD in each group. Multivariate predictors of PTCA in patients with 1 or 2-vessel CAD were previous PTCA, Q-wave MI, and care by INV. *Outcome:* In-hospital reinfarction and mortality (8.7% vs 12.7%) did not differ; during median 12-month follow-up (96% of pts), reinfarction and mortality (11.3% vs 10.3%) were similar. *Conclusion:* In this pilot study, subspecialization impacted upon the cost of care of MI and led to increased PTCA in patients with 1 or 2-vessel CAD; larger studies are needed to determine the influence of subspecialization on long-term clinical outcomes.

3:00

802-5 High Homocysteine Concentrations: An Independent Risk Factor for Coronary Atherosclerosis in Women

Ellen Mayer, Dave Miller, Anjun Gupta, Steven E. Nissen, Donald W. Jacobsen, Ralph Green, Kandice Kottke Marchant, Killian Robinson. *The Cleveland Clinic Foundation, Cleveland, Ohio*

Background: High plasma homocysteine concentration is a significant risk factor for premature vascular disease in men, but the role in determining coronary disease risk in women remains unclear.

Methods: Risk factors, including hypertension, hypercholesterolemia, smoking, and diabetes were recorded in 228 patients (175 men, 53 women) with angiographically documented coronary disease (≥70% stenosis of at least one major coronary vessel), and 223 healthy controls (181 men, 42 women). Fasting total plasma homocysteine was measured in all subjects. A high homocysteine concentrations was defined as a level greater than the 80th percentile, adjusted for gender.

Results: In univariate analysis, homocysteine correlated with age, but not smoking, hypertension or hypercholesterolemia. Homocysteine values and odds ratios based upon multivariate analysis were:

	Women		Men	
	Patients	Controls	Patients	Controls
Age	62 ± 12*	53 ± 10	61 ± 11*	51 ± 10
Homocysteine Level (μmol/L)	12.7 ± 4.4*	10.2 ± 4.9	13.1 ± 4.3*	11.3 ± 3.0
Percent High Homocysteine	55*†	20	35*	20
Odds Ratio	3.2*	NA	1.9*	NA
Confidence Interval	1.2–8.4	NA	1.1–3.3	NA

*$p < 0.01$ vs controls; †$p < 0.05$ vs male patients

Conclusions: Mean homocysteine concentrations are higher in women with coronary disease than age and sex matched controls. High homocysteine levels are more frequently seen in women than men and confer an independent three-fold incremental risk of CAD.

3:15

802-6 The Cost-Effectiveness of Pravastatin in Secondary Prevention of Coronary Heart Disease

Talat Ashraf, Joel W. Hay, John R. Crouse, Michael H. Davidson, Curt D. Furberg, Bertram Pitt, Ellison H. Wittels *Emron, Inc., Warren, NJ; University of Southern California, Los Angeles, CA*

To determine the cost-effectiveness of pravastatin therapy in patients with coronary heart disease, a projected risk model was developed that used the results of the three-year, double blind, placebo controlled clinical trials: *Pravastatin Limitation of Atherosclerosis in the Coronary Arteries* (PLAC I) and *Pravastatin, Lipids and Atherosclerosis in the Carotid Arteries* (PLAC II). In addition to measuring atherosclerotic progression, the PLAC studies evaluated four outcome variables: coronary heart disease death, non-coronary heart disease death, fatal myocardial infarction, and non-fatal myocardial infarction in a patient population (mean age 60 years) with established coronary heart disease and moderate low-density-lipoprotein cholesterol levels. Pooled PLAC data analysis (n = 559) revealed a statistically significant ($p < 0.05$) difference in male non-fatal myocardial infarctions between the pravastatin and placebo groups. The projected risk model utilized Framingham data to project the risk of mortality 10 years post myocardial infarction. Markov Process was used to estimate the life-years saved and cost. All costs and benefits were discounted by 5%. Results are presented in the table below:

Patient Risk Profile	Cost per Life-Year Saved
Male with CHD + 1 Additional Risk Factor	$19,082
Male with CHD + 2 Additional Risk Factors	$14,022
Male with CHD + 3 Additional Risk Factors	$10,630

Based on this model, pravastatin monotherapy in secondary prevention of coronary heart disease has a cost-effectiveness ratio comparable to some of the widely accepted medical interventions such as breast cancer screening, $21,700, hydrochlorothiazide in the treatment of hypertension, $16,400, and pneumococcal vaccine, $12,000.

1017 Clinical and Economic Studies of PTCA

Wednesday, March 22, 1995, 3:00 p.m.–5:00 p.m.
Ernest N. Morial Convention Center, Hall E
Presentation Hour: 4:00 p.m.–5:00 p.m.

1017-68 Influence of Platelet GP IIb/IIIa Receptor Inhibition with c7E3 on the Sequelae of Dissection During Percutaneous Coronary Revascularization

A. Michael Lincoff, Eric J. Topol, Robert M. Califf, Harlan F. Weisman, Nancy M. Wildermann, Stephen G. Ellis. *The Cleveland Clinic Foundation, Cleveland, OH; Duke University, Durham, NC*

The EPIC Trial tested the efficacy of the c7E3 monoclonal antibody to the platelet GP IIb/IIIa receptor in preventing ischemic events during "high-risk" PTCA or atherectomy by randomizing 2099 pts to receive placebo (PL), c7E3 bolus (BO), or c7E3 bolus + 12 hr infusion (BO + IN). BO + IN of c7E3 produced a 35% reduction in the 30-day composite primary endpoint (death, MI, urgent CABG, or re-PTCA) from 12.8% to 8.3% (p = 0.009) compared with placebo. Although c7E3 would not be expected to prevent the mechanical complication of coronary dissection, this agent may limit subsequent thrombus formation at dissection sites and thereby prevent progression to overt closure, embolization, or ischemic clinical events.

The influence of c7E3 on adverse sequelae among pts who sustained dissection during EPIC was therefore investigated. Moderate (2–10 mm) or long (>10 mm) dissections, as determined by Angiographic Core Laboratory analysis, occurred in 40.1%, 39.3%, and 42.5% of pts randomized to PL, BO, or BO + IN, respectively.

Event	PL (N = 278)	BO (N = 273)	BO + IN (N = 301)	p-value
Abrupt Closure	13%	7%	10%	0.080
Embolization	< 1%	1%	1%	0.693
Primary Composite Endpoint	17%	12%	10%	0.025
Death	3%	1%	1%	0.510
Myocardial Infarction	12%	6%	7%	0.013
Emergency Re-PTCA	6%	5%	1%	0.002
Emergency CABG	5%	3%	3%	0.350

Although c7E3 did not significantly diminish the risk of abrupt closure or embolization among pts with moderate or long coronary dissections, potent reduction in the incidences of MI and emergency repeat revascularization may reflect ultimate stabilization of disrupted vascular segments during the