

history of hypertension or heart failure, weigh less; were less likely to use tobacco, have a history of bypass surgery; and were less likely to undergo coronary revascularization. ($P < 0.0001$ all). Increased time to revascularization, larger infarction size, and worse ejection fraction on discharge were more predictive of stroke in men than in women (table). When multivariate analysis was performed of populations individually, these markers remained independently predictive in the male, but not female, population. Conclusion: Women are at significantly higher risk for in-hospital NHCVA following MI, which is not explained by their greater prevalence of other risk factors.

Variable	Males OR [95% CI]	Females OR [95% CI]
EF < .40	1.58 [1.37-1.83]	1.34 [1.18-1.53]
Q waves on admission EKG	1.38 [1.14-1.68]	1.04 [0.84-1.28]
ST elevation > 6 leads	1.51 [1.08-2.11]	0.91 [0.60-1.38]
Door to primary PTCA > 120 minutes	2.71 [1.63-4.51]	1.22 [0.78-1.91]
Door to thrombolytic > 45 minutes	1.74 [1.17-2.60]	1.27 [0.80-2.01]

1146-113 Elevated Troponin I Is an Independent Prognostic Marker for Increased Mortality Even in Patients Hospitalized With Noncardiac Diagnoses

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Background: Numerous studies have shown Troponin I (TnI) to be a valuable predictor of prognosis in acute coronary syndrome patients, but none has assessed the clinical significance of elevated Troponin I (>0.5 ng/mL) in patients hospitalized with non-cardiac diagnoses. **Methods:** In a cross-sectional design, a total of 60 patients, 30 consecutive with elevated Troponin I (eTnI) and 30 consecutive with normal Troponin I (nTnI) hospitalized with non-cardiac diagnoses were investigated. Prevalence Rate Ratio (PRR) was utilized to analyze all-cause mortality as the primary end-point. Multinomial logistic regression analysis was utilized to adjust mortality data for variables that differed significantly between the two groups. **Results:** The major categories of the admitting diagnoses were pulmonary (eTnI = 8, nTnI = 9), sepsis (eTnI = 7, nTnI = 1), neurological (eTnI = 6, nTnI = 9), gastrointestinal (eTnI = 7, nTnI = 6), and others (eTnI = 2, nTnI = 5). There were no significant differences found between the two groups in terms of their total number of cardiac risk factors, previous history of coronary artery disease or coronary revascularization, baseline creatinine, hematocrit, cholesterol levels, and use of aspirin, beta-blockers, angiotensin converting enzyme inhibitors, or statins. The eTnI group consisted of 57% males, compared to 87% males in the nTnI group ($p = 0.01$). Mean age in the eTnI group was 67.8 years compared to 59.8 years in the nTnI group ($p = 0.047$). Of the thirty patients with elevated TnI (mean = 2.10 ± 0.52 SD), 12 (40%) died during index hospitalization as compared to zero deaths reported in patients with normal TnI (mean = 0.04 ± 0.007 SD), and this difference was significant (PRR = 2.7, 95% CI = 1.9-3.8, $p < 0.0005$). Despite differences in age and gender between the two groups, adjusted analysis revealed elevated Troponin I to be the only risk factor for mortality ($p < 0.0005$ for TnI; $p = 0.9$ for gender; $p = 0.8$ for age). **Conclusion:** We have shown for the first time that the elevated Troponin I is an independent prognostic marker for increased mortality even in the patients admitted with non-cardiac diagnoses. There was a trend towards more patients with sepsis in the elevated Troponin I group.

POSTER SESSION

1147 Applying Evidence-Based Therapies in Clinical Practice

Tuesday, April 01, 2003, 9:00 a.m.-11:00 a.m.
McCormick Place, Hall A
Presentation Hour: 9:00 a.m.-10:00 a.m.

1147-92 Improved Results of the Guidelines Applied in Practice for Improving Quality of Care Patients With Acute Myocardial Infarction: The Flint-Saginaw Cooperative Initiative of the American College of Cardiology Foundation, Greater Flint Health Coalition, and Michigan Peer Review Organization

Rajendra H. Mehta, Cecelia K. Montoyo, Jessica Faul, Dorothy Nagle, James Kure, Ethiraj Raj, Peter Fattal, Mahamadali Amlani, Shiraz Sherrif, Hameem Changhezi, Stephen Skorcz, Patricia Baker, Anthony DeFranco, Kim A. Eagle, on Behalf of ACC GAP Steering Committee, University of Michigan, Ann Arbor, MI

Background: Since tool use in GAP-Pilot Project resulted in high level of evidence-based therapies for patients with acute myocardial infarction (MI), we decided to test if major emphasis on process changes and tool use rather than focusing solely on improving key indicator rates would increase the use of evidence-based therapies. **Methods:** The GAP-Flint-Saginaw MI Initiative was modeled on GAP-Pilot Project in five area hospitals in Michigan with greater emphasis on tool use and continuous monitoring of tool use. This surveillance allowed for early identification of process changes, barriers, and resistance to change. This in turn led to new rapid cycle plans to overcome barriers. Main outcome measures were MI quality indicator use in pre- (1/1/01-6/30/01) and post- (2/

15/01-3/31/02) measurement samples. **Results:** One or more tools were used in 93% of patients (standard orders=82%, critical pathways=79% and discharge document=44%). Indicator use is as shown (table). * $p < 0.05$ compared to baseline.

Indicators	Baseline (n=523)	Remeasureme nt (n=499)	Remeasurement (with tool use)
Within 24 hours of hospital arrival			
Aspirin (%)	88.9	89.6	92.0
Beta-blockers (%)	71.8	71.6	72.0
LDL cholesterol measurement	82.3	83.6	86.8
At discharge			
Aspirin (%)	78.8	90.9*	93.4*
Beta-blockers (%)	78.4	90.4	89.3
ACE inhibitors in patients with low LV dysfunction (%)	69.2	88.8*	93.7*
Smoking cessation counseling (%)	57.5	72.8*	84.6*
Dietary counseling (%)	78.1	88.8*	95.4*
Cholesterol lowering agents	76.8	84.1	87.6

Conclusions: These data validate the results of GAP-Pilot Project that quality of MI care can be improved through emphasis on guideline-based tool use. Continuous monitoring of tool use and identifying/overcoming of barriers, lead to substantially higher tool use than observed in initial GAP project. Tool use is associated with higher adherence to key indicators, particularly key therapies at discharge.

1147-93 Predictors of Treatment Delay in Patients With Acute Myocardial Infarction Undergoing Primary Angioplasty: An Analysis From the CADILLAC Trial

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Background: Delays in time to angioplasty after hospital arrival in patients (pts) undergoing primary PCI for AMI have been associated with increased mortality in large databases. However, the inherent reasons and correlates for delay to angioplasty remain poorly understood.

Methods: We analyzed the baseline demographic, angiographic, and procedure-related variables predictive of delays in door-to-balloon time (DB time) in the CADILLAC trial, in which 2,082 pts of any age with AMI onset <12 hours (excluding shock) were randomized to PTCA vs stent, with vs without abciximab.

Results: Median DB time was 120 minutes (interquartile range 90-162) for all pts. Statistically significant clinical predictors of delay > 2hrs by univariate analysis included female gender (risk ratio 1.13, $p < 0.0001$), circumflex infarction (RR 1.54, $p < 0.0001$), insulin dependent diabetes (RR 2.22, $p = 0.002$), prior CABG (RR 3.28, $p = 0.02$), non-ST-elevation MI (RR 4.35, $p < 0.0001$), 3 vessel disease (RR 1.30, $p = 0.02$), and delayed time to ER arrival ($p = 0.0003$). Angiographic predictors of delay included pre-procedure TIMI-3 flow, small reference vessel diameter and larger initial MLD (all $p < 0.0001$). Multivariate predictors of delay using stepwise logistic regression included non-LAD infarction ($p = 0.04$), female gender ($p = 0.0004$), 3-vessel disease ($p = 0.02$), small reference vessel diameter ($p < 0.0001$), and larger initial MLD ($p < 0.0001$).

Conclusion: The time from hospital presentation to angioplasty is >2hrs in 50% of pts with AMI undergoing contemporary interventional management. Predictors of delay to treatment after hospital arrival may be explained by atypical symptoms or indeterminate ECGs (female gender or LCX MI), and less severe symptoms (smaller infarct vessel or patency of infarct vessel due to larger MLD). These data emphasize the need for awareness and expedited reperfusion pathways for patients at highest risk for delays to PCI.

1147-94 Beneficial Effects of Direct Call to Emergency Medical Services on Time Delays and Management of Patients With Acute Myocardial Infarction: Real World Data From RICO Database

Jean-Claude Beer, Gilles Dentan, Luc Janin-Manificat, Marianne Zeller, Yves Laurent, Isabelle Lhuillier, Jacques Ravisy, Yves Cottin, Jean-Eric Wolf, CHU Dijon, Dijon, France

Background. Delayed access to medical care in patients with acute myocardial infarction (AMI) increases myocardial damage. Only few studies have analysed the influence of direct call to emergency medical services (EMS) in patients with AMI. From the regional observatory of MI (RICO) data base, we report the acute management in patients calling either EMS or other medical contact (OMC) as first medical seek after symptoms onset of MI. **Methods.** Data were prospectively collected from January to October 2001, in the 6 medical units in charge of MI in the region of Cote d'Or. Among the 322 patients included, only 57 (18%) directly called EMS after symptoms onset (group EMS) and 265 (82%) called another medical contact (group OMC). **Results.** The baseline characteristics including age and risk factors were similar among the 2 groups of patients. Moreover, cardiovascular history was the same between the two groups, except for history of MI (21 % in EMS group vs 11 % in OMC group, $p < 0.05$). The median times from symptoms onset to first medical intervention (48 vs 105 min, $p < 0.02$) and from