

JACC March 19, 2003

ABSTRACTS - Myocardial Ischemia and Infarction 377A

first medical intervention to hospital admission (60 vs 103 min, $p < 0.02$) were markedly shorter in EMS group. We also observed a significant increase in reperfusion therapy at the acute phase in EMS group compared to OMC group (respectively 70 % vs 48 %, $p < 0.003$), mainly due to a higher rate of primary angioplasty (respectively 33 % vs 20 %, $p < 0.04$). **Conclusion:** Our study in real world collecting data from a French regional population demonstrated that only a small rate of patients use the direct call to EMS at symptoms onset of MI. This study also documents the beneficial effect of a direct call to EMS by reducing the pre-hospital delays and by increasing the rate of early revascularisation.

1147-95 Glycoprotein IIb/IIIa Inhibitors Are Underutilized Among Patients Who Undergo Cardiac Catheterization Following Acute Myocardial Infarction: Observations From the NRM1-4

John G. Canto, Eric Peterson, Charles Pollack, Lori Parsons, Nathan R. Every, William J. Rogers, Catarina I. Kiefe, Kathee Litrell, Hal V. Barron, for the NRM1 investigators, The University of Alabama at Birmingham, Birmingham, AL, Duke Clinical Research Institute, Durham, NC

Background: Glycoprotein IIb-IIIa Inhibitors (GPIs) have been shown to improve the outcomes of patients with acute coronary syndromes. Recent reports have suggested that many MI patients who may be eligible for GPIs still do not receive these treatments. **Methods:** We examined the prevalence of GPI use in the NRM1 4 (Jul 2000 - Apr 2001) and created a predictive model to better ascertain the factors associated with GPI use. In order to minimize selection bias and confounding, we selected patients who received cardiac catheterization and presented at fully interventional capable hospitals. Patients who had contraindications to GPI and who were transferred-out to another hospital were excluded from this study. **Results:**

Utilization of GP IIb-IIIa Inhibitors (GPIs) after MI, N = 24,438

	GPI	No GPI
CATH: N = 24,438	43.4%	56.6%
Elective PCI: N = 6,086	77.4%	22.6%
Primary PCI: N = 1,314	86.8%	13.2%

MV analysis of the factors associated with GPI use

	Odds Ratio	P value
Non-Whites	0.80	< 0.001
Women	0.90	0.001
Age - 10 years	0.92	< 0.001
History CHF	0.83	0.002
Prior MI	0.87	< 0.001
Medicare (vs FFS)	0.88	0.002
COPD	0.90	0.03
Smoker	1.11	0.003
West (vs Midwest)	1.17	< 0.001
South (vs Midwest)	1.17	< 0.001
Anterior MI	1.21	< 0.001
Prior CABG	1.16	< 0.001
Prior PTCA	1.31	< 0.001
LBBB	1.59	< 0.001
Chest pain	1.72	< 0.001

OR < 1.0 associated with less use; OR > 1.0 more use

Conclusion: Less than half of patients with MI who may be eligible for GPIs actually received these therapies. Minorities, women and increasing age were important factors associated with less use, though chest pain on initial presentation and prior coronary revascularization were associated with more use.

1147-96 Critical Pathways in the Emergency Department Have Improved Treatment Modalities and Outcome for Patients With ST Elevation Myocardial Infarction

Francesco Pelliccia, Domenico Cartoni, Paolo Salvini, Sandro Petrolati, Alberta Cifarelli, Francesco Pozzar, Pietro Tanzi, San Camillo Hospital, Rome, Italy

Background: The use of protocols for pts with ST elevation myocardial infarction (STEMI) is growing, but no definite conclusion regarding the value of critical pathways has been drawn. Aim of this study was to investigate the impact of a critical pathway on processes of care and outcome for pts accessing the emergency department (ED) because of a possible STEMI.

Methods: Critical pathways for management of acute chest pain and STEMI at our ED were developed in 1998 and revised every year. Accordingly, the records of all pts who were referred because of chest pain to the ED in 1997 (before pathways' implementa-

tion) and in 2001 (after last pathway's revision) were reviewed. A STEMI was diagnosed at ED in 520/5,066 (10.3%) chest pain pts in 1997, and in 452/4,843 (9.3%) chest pain pts in 2001. Pts were managed according to the ED cardiologist's decisions in 1997, whereas entered the pathway for STEMI in 2001, with pre-defined criteria for diagnosis, thrombolysis, percutaneous coronary intervention (PCI) and admission to CCU.

Results: Comparison of treatment modalities disclosed that more pts were given thrombolysis in 1997 (49% vs 16%, $p < 0.05$), whereas in 2001 more pts were sent to PCI (63% vs 11%, $p < 0.05$). In 2001, also, pts received more often aspirin (90% vs 61%, $p < 0.05$) and i.v. beta-blocker (60% vs 35%, $p < 0.05$) soon after arrival at ED. Comparison between 1997 and 2001 revealed similar admission rates to CCU (69% vs 78%, NS) or cardiac wards (19% vs 10%, NS). Conversely, with respect to 1997, pts hospitalized in 2001 had shorter length-of-stay (12 ± 5 vs 18 ± 6 days, $p < 0.05$) as well as lower major adverse coronary events (21% vs 30%, $p < 0.05$) and lower all-cause in-hospital mortality (12% vs 20%, $p < 0.05$). The quality of care indicators improved with time, as door-to-ECG interval (10 ± 6 vs 19 ± 9 min, $p < 0.05$), door-to-needle time (25 ± 10 vs 35 ± 10 min, $p < 0.05$), and door-to-balloon interval (70 ± 15 vs 99 ± 20 min, $p < 0.05$) were shorter in 2001 than in 1997.

Conclusions: A critical pathway for STEMI at ED increases the use of evidence-based treatment strategies and improves outcome and quality of care of pts presenting to an ED because of acute chest pain.

1147-97 Use of Reperfusion Therapy in Patients Presenting With ST Elevation Myocardial Infarction: Findings From The TETAMI Study and TETAMI Registry (The Safety and Efficacy of Subcutaneous Enoxaparin Versus Intravenous Unfractionated Heparin and of Tirofiban Versus Placebo in the Treatment of Acute Myocardial Infarction)

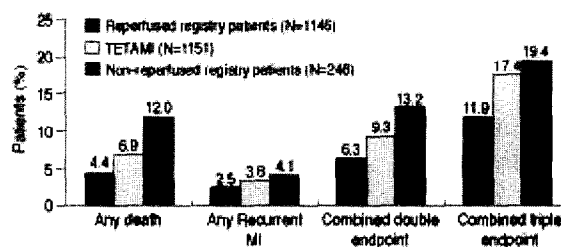
Gian Franco Gensini, Marc Cohen, Frans Maritz, Enrique P. Gurfinkel, Kurt Huber, Ari Timerman, Maria Krzeminska-Pakula, Nicolas Danchin, Harvey D. White, Luc Vittori, Clinical Medica Generale e Cardiologia, Florence, Italy

Early treatment with lytics or primary PCI reduces the mortality rate of STEMI patients. Pts presenting >12 h are generally considered to be ineligible for reperfusion therapy, and there are currently no specific treatment recommendations.

Methods: Patients with STEMI <24 h who are ineligible for acute reperfusion, have no cardiogenic shock and with no revascularization scheduled within 48 h were included in the TETAMI study and randomized to 1 of 4 antithrombotic regimens involving enoxaparin or UFH in combination with tirofiban or placebo for 2-8 days. A concurrent registry tracked STEMI patients reperfused <12 h and non-reperfused patients presenting <24 h and not enrolled in TETAMI. We compared the demographics and clinical outcomes of 1397 pts ineligible for acute reperfusion with 1146 pts eligible for reperfusion.

Results: Outcomes are presented below. The major reason for not using reperfusion therapy was late presentation. Reperfused registry patients were younger: aged 61, compared with 63 and 67 years for TETAMI patients and non-reperfused registry patients; more likely to be male (78%, 73% and 63%, respectively), and had persistent ST elevation as opposed to LBBB or Q waves. Reperfused registry patients had better outcomes even after adjusting for admission Killip class. TETAMI patients had better outcomes than non-reperfused registry patients.

Conclusion: These data highlight the need for new therapeutic strategies for this high risk patient cohort.



1147-98 International Patterns in the Care of Acute Myocardial Infarction Patients in the Occluded Artery Trial (OAT): Characteristics of 1,835 Screened Patients

Michael Ragosta, Aldo P. Maggioni, Lampros K. Michalis, Irene Lang, Antonio C. Carvalho, Krystyna Lobo-Grudzien, Gerry Devlin, Gilmar Reis, Peter Merciar, Sandra Forman, Gervasio A. Lamas, Judith S. Hochman, on behalf of OAT Investigators, Charlottesville, VA

Background: Up to 1/3 of stable post-MI patients have an occluded infarct-related artery (IRA). OAT is an international, randomized trial designed to determine if benefit exists in opening the occluded IRA 3-28 days post-MI in asymptomatic, high-risk patients. As of 9/1/02, 911 patients were randomized. The purpose of this interim analysis is to define characteristics that correlate with practice differences in the care of acute MI in OAT sites in the US, Canada and other countries. A criterion for selection of an OAT site was the availability of an experienced PCI operator who met rigorous standards.

Methodology: In order to define the population of MI patients from which OAT patients