Management of high-risk unstable angina and non-ST elevation myocardial infarction: variations in practice. Findings from the Global Registry of Acute Coronary Events (GRACE)

Eur Heart J 2000; 21 (suppl): 246.

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Background: Although data from randomized trials have brought advances in the treatment of ACS, it is unclear to what extent such treatments are used in routine daily practice. The aim of this study was to investigate variations in hospital management and outcomes of patients with ACS, using unselected data from the prospective, multinational GRACE study.

Methods and results: Data from 2244 patients with UA or non-Q-wave MI were analyzed according to diagnosis at discharge. Although there were similar rates of use of pharmacologic treatments such as aspirin, marked differences were seen in the use of PCI, GP IIb/IIIa inhibitors and LMWH (Table 1). Variations in the use of ACE inhibitors and statins were also seen, whereas the use of APs or anticoagulants was consistent. Use of PCI and GP IIb/IIIa inhibitors correlated most closely with access to a Cath lab, irrespective of geographic location (Table 2). PCI and GP IIb/IIIa inhibitors were used more often in the USA than in other regions.

Conclusions: Hospital characteristics and geographic locations markedly influence patterns of clinical practice, particularly in the use of PCI and GP IIb/IIIa inhibitors.

In-hospital treatment	Teaching hospital (n=1264)	Non-teaching hospital (n=980)	+Cath lab (n=1598)	–Cath lab (n=646)	
	Patients (%)				
Aspirin GP IIb/IIIa	91	90	90	92	
inhibitors	14	6**	14	1**	
LMWH	42	52**	44	50*	
PCI	26	13**	28	1**	
*P<0.05, **P<	0.01				

Table 1. Use of in-hospital treatments of ACS by hospital characteristics

In-hospital treatment	AB (n=587)	ANC (n=409)	Europe (n=816)	USA (n=432)	
	Patients (%)				
Aspirin GP IIb/IIIa	94**	86	89	93	
inhibitors	6**	3	8	27	
LMWH	44**	51	63	13	
PCI	17**	12	18	36	
**P<0.01					

Table 2. Use of in-hospital treatments of ACS by geographic location