

Clopidogrel: what is the impact of such treatment on MACE rate and mortality in acute coronary syndromes?

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Background: Practice guidelines have currently classified the administration of Clopidogrel in IIa for ST elevation myocardial infarction (STEMI) and I for Non STEMI (NSTEMI). The AMIS-Plus registry (Acute Myocardial Infarction in Switzerland) is a national prospective registry of acute coronary syndromes (ACS) offering the opportunity to study impact of different treatment modalities on in hospital outcome.

Methods: From January 1997 to December 2005, The AMIS-Plus data base included 19,461 patients with an ACS admitted to Swiss hospitals. Complete data on Clopidogrel administration are available on 19,209 pts.

Results: Baseline characteristics and in-hospital outcome are presented in the table:

N=19,209	Clopidogrel (n=7,819) STEMI/NSTEMI 4742/3077	No Clopidogrel (11,390) STEMI/NSTEMI 6760/4630	p value
Female gender	23.3%	30.7%	0.001
Age mean \pm sd median	62.7 \pm 12.6 y 63y	67.3 \pm 13.1y 69y	0.001
Killip class			0.001
Killip class I	82.5%	70.2%	
Killip class II	13.2%	20.5%	
Killip class III	2.3%	6.7%	
Killip class IV	1.9%	2.6%	
Diabetes	18.2%	21.5%	0.001
Concomitant GP IIb/IIIa antagonists	47.9%	21.1%	0.001
PCI any	85.5%	37.5%	0.001
Outcome	Clopidogrel	No Clopidogrel	
MACE rate	5.6%	13.3%	0.001
In-hospital mortality	3.5%	10.3%	0.001
Diabetic pts mortality (n=3772)	6.0%	14.5%	0.001

When correcting the baseline characteristic imbalances by multivariate analysis, impact on mortality and major adverse clinical events (angina, reinfarction and death: MACE), the differences are still significant. OR for mortality 0.81, CI95% 0.74-0.98; OR MACE 0.83, CI95% 0.70-0.98)

Conclusion: In Swiss hospitals, Clopidogrel use on pts with ACS is associated with both lower MACE rate and lower in hospital mortality.