Trends in Reperfusion Therapy of Acute Myocardial Infarction in Switzerland Six-Year Results From a Nationwide Registry

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Purpose: Several randomized controlled trials have shown a definite survival advantage associated with reperfusion therapy in acute myocardial infarction (MI), with a significant benefit for primary percutaneous coronary intervention (PCI) over thrombolytic therapy. The aim of this analysis is to document the evolution of trends in reperfusion therapy of acute MI in Switzerland over the past six years.

Methods: We reviewed a nationwide prospective registry of 10,619 patients admitted for acute coronary syndrome in 54 hospitals all over Switzerland from 1997 to 2002. We included 6,567 patients that presented with ST segment elevation or left bundle branch block on the electrocardiogram at admission.

100% 8 9 11 18 90% 30 36 80% 70% 43 47 44 % of patients 41 60% 33 50% ■ Thrombolytic therapy 29 ■ No reperfusion 40% 30% 48 45 45 20% 41 37 35 10% 0% 1997 1998 1999 2000 2001 2002 Year

Results: The proportion of patients treated by each mode of therapy according to the year is given in the figure.

Overall in-hospital mortality during the study period was 10.2% (16.9% for the patients with no reperfusion, 5.7% for those receiving thrombolytic therapy and 4.2% for those who underwent PCI). Both the mode of reperfusion and selection bias probably impacted on these results in a significant way. The main multivariate predictors of in-hospital mortality were: age>65 years, and Killip class III or IV at admission.

Conclusion: In Switzerland, PCI is increasingly used as a primary mode of reperfusion for acute MI, while the use of thrombolytic therapy appears to have somewhat decreased over the past six years. More importantly, over a third of patients still receive no reperfusion therapy at all, a point that obviously deserves further attention.