

**Impact of reperfusion strategies on in-hospital outcome in ST-elevation myocardial infarction in a context of interhospital network: data from the prospective VENERE registry (VENETO acute myocardial infarction Registry)**

Ital Heart J Suppl. 2005 Dec;6(12):804-11. [Article in Italian]

**Di Pede F, Olivari Z, Schievano E, Spolaore P, Cacciavillani L, La Vecchia L, Bruni A, Zuin G, Franco GF, Palatini O, Morando G, Tinto M, Rossi M, Guarnerio M; Ricercatori del Registro VENERE.**

**BACKGROUND:** Primary angioplasty (pPCI) is the most effective reperfusion treatment of acute ST-elevation myocardial infarction (STEMI), but logistic- and organization-related problems could affect the outcome. The aim of this study was to investigate the in-hospital outcome according to reperfusion strategy in the Veneto Region cardiology network.

**METHODS:** A treatment protocol, aimed to treat patients with high-risk STEMI by pPCI on-site or after transport, was developed and shared by the majority of cardiology departments in the Veneto Region. Data of all consecutive patients with STEMI were prospectively recorded during a 6-month period.

**RESULTS:** 999 patients with symptom onset < 12 hours were admitted to the 28 participating hospitals: 860 were treated on-site and 139 were transferred from the admitting hospital to an interventional center for PCI. Overall, 82% of patients were treated with reperfusion therapy. Ten patients died immediately before any treatment could be initiated. In 170 patients who did not receive any reperfusion treatment, in 302 patients who received fibrinolysis (and eventually rescue PCI) and in 517 patients sent to pPCI, the following in-hospital outcome was observed respectively: mortality rate 10, 6.95 and 6.57%; reinfarction rate 0.6, 1 and 0.4%; incidence of stroke 1.7, 1.4 and 0.9%; the need for urgent revascularization procedure 6.5, 10 and 2.3%. After adjustment for confounding variables, the in-hospital occurrence of the combined events was significantly lower in patients treated with pPCI (odds ratio 0.33, confidence interval 0.20-0.53,  $p < 0.01$ ) as well as a trend for a reduced in-hospital mortality was observed (odds ratio 0.51, confidence interval 0.26-1.03,  $p = 0.06$ ).

**CONCLUSIONS:** In the VENERE registry, patients treated with pPCI had a better in-hospital outcome as compared to those treated with fibrinolytic strategy.