

Stent for life initiative

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Primary angioplasty (with stent implantation) is the most effective therapy for acute myocardial infarction (AMI), but it is not available to many patients, even though most European countries have sufficient resources (ie, catheterisation laboratories) for its wider use. The Stents 4 Life initiative was a study aiming to analyze the use of primary angioplasty in the treatment of AMI in 27 European countries.

Data were collected from national infarction or angioplasty registries, on AMI epidemiology and treatment and on angioplasty centres and procedures in each country.

Findings showed that the frequency (annual incidence) of hospital admission for any AMI varied between 90 and 312 events per 100,000 population per year; the incidence of serious AMIs (with ST-elevations on ECG - STEMI) ranging from 44-142 per thousand.

Primary angioplasty (primary PCI) was the dominant reperfusion strategy in 17 countries and thrombolysis in nine countries. The application of a PCI strategy varied between 5 and 92% (in all STEMI patients), and use of thrombolysis (an older, less effective form of therapy) between 0 and 55%. Current guidelines recommend that any reperfusion treatment (angioplasty or thrombolysis) should be used ideally in 100% of these patients; however, we found it used only in 37% of STEMI patients.

The number of primary angioplasty procedures per million population per year varied among countries between 20 and 970. The mean

population served by a single primary angioplasty centre varied between 0.3 and 7.4 million inhabitants. In those countries offering primary angioplasty services to most of their STEMI patients, population varied between 0.3 and 1.1 million per centre.

In-hospital mortality of all consecutive STEMI patients varied between 4.2 and 13.5%, of patients treated by thrombolysis between 3.5 and 14%, and of patients treated by primary PCI between 2.7 and 8%.

The time reported from symptom onset to the first medical contact (FMC) varied between 60 and 210 minutes, FMC to needle time for thrombolysis between 30 and 110 minutes, and FMC to balloon time for primary angioplasty between 60 and 177 minutes.

Most north, west and central European countries used primary angioplasty for the majority of their STEMI patients. The lack of organised primary angioplasty networks in some countries was associated with fewer patients overall receiving some form of reperfusion therapy. Primary angioplasty rates above 600 per million population are needed to provide this treatment for most STEMI patients in Europe.

Source: European Society of Cardiology ([news](#) : [web](#))

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