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Reprint

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Targeting PCI at all who will benefit the most
A joint project between EAPCI, Euro-PCR, EUCOMED
and the ESC Working Group on Acute Cardiac Care

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Why “Stent 4 Life” ?

Progress in pharmacological therapy and secondary prevention has improved the prognosis of patients with chronic, stable coronary artery disease (CAD). Indeed many previous trials as well as the recently published Courage study have confirmed that the natural course of coronary patients is generally good, with low annual mortality rates (< 2%). Being a chronic, slowly progressive disease with an inflammatory component, CAD is occasionally associated with increased risk and, eventually, poor outcomes at the time of acute, focal plaque events that result in intracoronary thrombosis. These unpredictable bursts can lead to sudden ischaemic cardiac death, myocardial infarction (STEMI) or unstable angina with a sharp increase in risk (>10% mortality rate) that will last for several months, until the disease enters again a period of a more stable course.

In patients with stable CAD, benefit of mechanical revascularisation using bypass surgery or stented angioplasty will be restricted to symptomatic improvement, unless a large proportion of the myocardium is at risk (10% or more) and can be revascularised. On the contrary, there is mounting evidence that myocardial revascularisation in patients presenting with acute forms of CAD is life saving: it reduces mortality, rates of non-fatal reinfarction and stroke, as compared to the previous standard of care (pharmacological treatment, including thrombolytic therapy for STEMI). This evidence has led all ESC as well as international Practice Guidelines to issue class I A recommendations for

revascularisation of STEMI, non-STEMI-acute coronary syndrome and other high-risk unstable angina subsets.^{1,2}

As a result, common sense would dictate that resources are prioritised in order to target PCI to those patients presenting with the above mentioned disease subsets who will benefit the most from revascularisation therapies. While up to 85% of all PCI procedures performed in the United States in 2004 were still done to treat stable forms of chronic CAD, the practice has evolved and already today, treatment of acute coronary syndromes represents over 50% of the PCI case load in many European countries and abroad. Providing this service to the population is part of our essential responsibilities as a professional group and the public is entitled to expect this level of quality-of-care, across boundaries. At the same time, focusing human and financial resources on the treatment of acute coronary syndromes is rewarding from many perspectives: it provides tremendous added value to the practice of PCI, both for the public and the physicians, while health care payers will enjoy the high return on investment.

The reperfusion paradox

Timely delivery of expert invasive revascularisation therapy to acutely sick patients is demanding and requires re-engineering of services. Although the superior safety and efficacy of PCI is acknowledged, many felt that reperfusion treatment using intravenous thrombolysis is more widely available, less dependent on geographic situation and existing facilities. The opposite is true: recent evaluation of practices

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across Europe shows that far more patients receive reperfusion treatment in countries with low use of thrombolysis and high use of PCI. With the help of representatives of the national interventional Working Groups and societies, EAPCI did conduct a survey of revascularisation strategies for acute CAD. Results of the questionnaire will be presented in detail during the upcoming EuroPCR meeting in Barcelona, 19-22 May 2009 and submitted for publication shortly. Some essential findings can be shared with the readers of this editorial. North, west and central European countries use primary PCI for majority of their STEMI patients. Pharmacological reperfusion in real life is not significantly faster than mechanical reperfusion, unless pre-hospital fibrinolysis can be delivered. Dominant use of in-hospital thrombolysis results in many patients being left without any form of reperfusion therapy. Mortality reduction by primary PCI is greater in real life than in randomised trials (except, it should be noted, in certain specific local settings, where a policy of fibrinolysis followed by systematic early PCI, has been shown to yield clinical results similar to those of primary PCI³).

Primary PCI rates over 600 per one million inhabitants would enable us to address the needs of most patients suffering from STEMI across Europe. Lastly, and perhaps most importantly, we have observed enormous variations in practice patterns. Particularly disturbing was the observation that a number of European countries / regions / cities seem to have (more than) the required capacity to effectively deliver primary PCI; yet it does not happen...

What is “Stent 4 Life”?

Considering the indisputable scientific evidence on the one hand, and the inhomogeneity in existing practice patterns on the other hand resulting in tremendous inequalities in patient access to adequate care, we call for immediate action. The leadership of EuroPCR, EAPCI and ESC Working Group on Acute Cardiac Care is launching the “Stent 4 Life” initiative, in collaboration with EUCOMED, a global organisation that is representing our industrial partners. The mission of the “Stent 4 Life” coalition is to promote the lifesaving indications of PCI, implying that priority will be given to targeting invasive resources to those patient groups who will benefit the most. Rather than attempting to enforce top down directives, the program will rely entirely on national Interventional Working Groups and Societies. Synergy, rather than competition, with existing initiatives will be the goal. We are delighted that the National Infarct Angioplasty Project in the United Kingdom (290911/Treatment of heart attack national guidance, <http://www.orderline.dh.gov.uk>) has recently announced the launch of an ambitious project aimed at providing primary PCI across the country, starting with the creation of stakeholder networks.

Intrigued by the observation that a number of countries / regions seem to have succeeded in implementing primary PCI for nearly all patients in need, our first (ongoing) task has been to identify key facilitators and essential requirements for a successful program. Next, our project will

seek collaboration, involvement and ownership/participation of all interventional colleagues from EAPCI member states. Depending on the local status of PCI for acute CAD, and based on the results of the recent survey mentioned above, specific action plans will be designed. The “best practice” examples will hopefully be a source of inspiration to the less successful environments. The “Stent 4 Life” coalition will invest in selected countries through implementation programs, coupled with evaluation of the process as required. In selected regions / countries having unmet medical need in the optimal treatment of STEMI and NSTEMI, the program will attempt to improve medical practices by ensuring improved patient access to PCI as recommended by ESC guidelines.

In addition to these focused implementation programs that will be deployed in a limited number of areas, action will be taken across the EAPCI constituency, at all relevant levels: the profession, the public, and the political scene.

As you will realise while reading this article, we are extremely passionate about this endeavour. We trust that “Stent 4 Life” will mean a lot to you and even more to your many patients across Europe. We are convinced that this action will be of benefit to all. Engaging in “Stent 4 Life” simply is the right thing to do, and at this early stage, we trust and rely on the active involvement of the entire interventional community.

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