“Stent 4 Life”
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

Petr Widimsky1, Jean Fajadet2, Nicolas Danchin3, William Wijns4∗

1. Co-Chairman Stent 4 Life, ESC Practice Guidelines Committee, Cardiocenter, Charles University & University Hospital
Kralovske Vinohrady, Prague, Czech Republic; 2. EAPCI and EuroPCR Board member, Clinique Pasteur, Toulouse, France;
3. Chairman of the ESC Working Group on Acute Cardiac Care, Hospital Européen Georges-Pompidou, Broussais-HEGP, Paris,
France; 4. EAPCI President, Chairman of the ESC European Relations Committee, Cardiovascular Center, Aalst, Belgium

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
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 prehospital 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 PCI). 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 percutaneous coronary intervention for ST-segment-elevation acute myocardial infarction in patients presenting with persistent ST-segment elevation: the Task Force on the Management of ST-Segment Elevation Acute Myocardial Infarction of the European Society of Cardiology. Eur Heart J. 2008;29:2909-2945).

